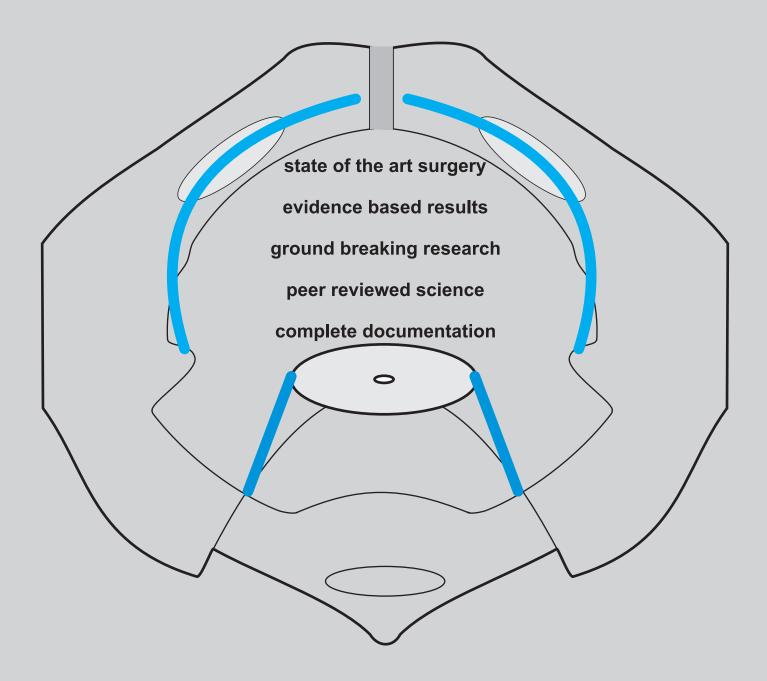
National VVF Project Nigeria

evaluation report XXVI 2009



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chief consultant fistula surgeon

sponsored and financed by: waha-international paris



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2009

<u>Nigeria</u>

Southeast Fistula Centerl ABAKALIKI

Special VVF Center B/KEBBI

Faridat Yakubu VVF Hospital GUSAU

General Hospitals HADEJIA - JAHUN

Laure Fistula Center KANO

Babbar Ruga Fistula Hospital KATSINA

Federal Medical Center NGURU

Maryam Abacha Hospital SOKOTO

Kofan Gayan Hospital ZARIA

République du Niger

Centre Hospitalier Départemental MARADI

Hôpital National NIAMEY

Maternité Tassigui TAHOUA

Maternité Centrale ZINDER

the (surgical) management of the obstetric fistula has to start the moment the leaking of urine becomes manifest

no need to become an outcast

the immediate management by catheter and/or early closure is highly successful and will prevent the woman from becoming an outcast

the best way to treat the whole patient is by closing the fistula

do not waste time, energy and money on things which make no sense concentrate on the most important thing: close the fistula

previous repairs, scar tissue, vagina strictures etc do not influence the outcome of surgery

only surgical principles and surgical techniques with the surgeon being the most important

the real master shows himself in his restrictions

prevention

only by building hospitals, roads and schools lesson learned from history

there is no relation to

early marriage, culture, height, religion, tribe, race etc

in the USA 480,000 teenage deliveries during the year 2002 however, not a single obstetric fistula

only to

poor obstetric care

is it not time to change the strategy

after 30 years of failed safe motherhood campaigning

which did not bring a single positive result due to the arrogance and ignorance of the aid organizations spending a fortune on things which make no sense

at the moment it does not make a difference
where a woman delivers
she is being neglected all the same
at home and in the hospital
dead infant and dead or mutilated mother

improve the hospital obstetric care so that the highly intelligent public notices the difference live infant and healthy mother

executive summary

the only evidence-based cause of the obstetric fistula is prolonged obstructed labor due to **poor obstetric care**

there are two types of prevention: **primary prevention** preventing the obstetric fistula from occurring and **secondary prevention** preventing the woman from becoming an outcast

primary prevention is by **upgrading the obstetric care**; once there is a reliable and efficient service in place, like the mobile telephone network, people will use it

secondary prevention is by the immediate management by catheter and/or early closure; the earlier the better

it takes years of serious study combined with even more years of hard practice to master the **noble art and science of obstetric fistula surgery**

there are **no simple fistulas**; it only may look simple in the hands of the few expert fistula surgeons

during the year a new center was started in Départment de Tahoua in Maternité Tassigui in Tahoua making a **grand total of 13 VVF-repair centers**

during the year a total of 2,386 VVF/RVF-repairs were performed in the project making **a grand total of 32,059 repairs**

during the year a total of 8 doctors and 4 nurses attended our regular training program making a grand total of 730 trainees: 329 doctors, 330 nurses/midwives and 71 other persons

during the year 6 workshops were executed making a grand total of 30 workshops

it has to be stressed that these achievements are only due to **teamwork** and the **combined efforts** by all the doctors, nurses and other personnel in all the centers

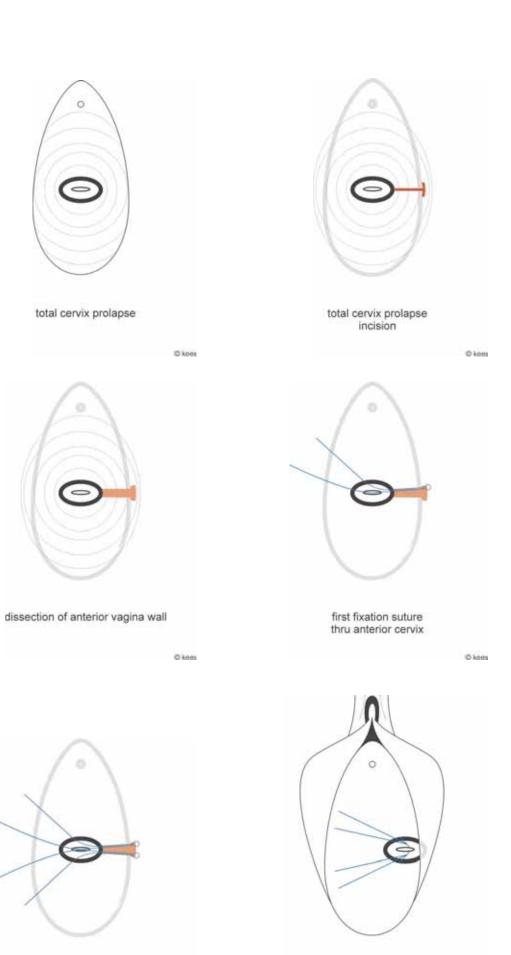
we have a close cooperation with the Hamlin fistula projects in Ethiopia, the national fistula project of République du Niger and the AMREF fistula project in East Africa; we would like to cooperate with more projects

scientifically, at the second ISOFS conference in Nairobi in Kenya we participated with 7 presentations

the **strength of the program** is that everything is **evidence based** by meticulous documentation, extensive database, prospective research, individual follow-up over years and consequent analysis of the results according to scientific parameters

the **real master shows himself is his restrictions**; so we **stick to the minimum** but that to the best of our knowledge, expertise and conscience

having been 3 years without a full sponsor for the running costs not covered by the government we are very happy that from 2010 onwards we found a new sponsor in waha-international



© kees

end result fixation sutures tied without loose loop

© kees

second fixation suture thru posterior cervix

evaluation report XXVI

introduction

the obstetric fistula is as old as mankind and constitutes a social disaster of the highest order; due to the continuous urine leakage with offensive smell these patients are ostracized from their own community if nothing is done and loose all dignity, as a woman and as a human being, with progressive downgrading medically, socially, emotionally and mentally the variety of the complex trauma of the obstetric fistula is enormous: from a minute fistula with minimal tissue loss to a cloaca in an empty pelvis with extensive intravaginal lesions and (sub)total loss of all the intrapelvic tissues, extravaginal lesions, urine-induced lesions, neurologic lesions and systemic lesions

the only rehabilitation into society is by successful closure of the fistula; however, this is not simple considering the extent and the immense variety of the trauma

though prevention of the obstetric fistula is not possible for another century, **prevention of the social disaster** is very well feasible by the **immediate management** by catheter and/or early closure; **no need to become an outcast**

this VVF Project aims to have an impact by providing a VVF-repair service, by establishing VVF centers, by training all kinds of doctors, nurses and paramedical personnel and by providing training materials with the emphasis on keeping it simple, safe, effective, feasible, sustainable and payable under African conditions

philosophy of the project

to provide a professional service concentrating upon the immediate (surgical) management of the obstetric fistula patient

to bring the service towards the patients which means multiple "small" repair centers within their own community throughout Africa and not a single white elephant in the capital

to work for or in close collaboration with the government in order to have an impact upon the obstetric fistula as a major public health problem

to ensure optimal comprehensive care: repairs by the surgeon and rehabilitation if needed by the social workers in close cooperation

to concentrate on the repairable fistulas and especially on the immediate management as a priority considering the scarcity of human resources, finances and available infrastructure to make a clear statement during the whole management process about further surgical inter ventions: it does not make sense to operate forever on the incurable patients

to demarcate the responsibilities: once the surgeon has done his job <closure of the fistula to the best of his knowledge, conscience and expertise> in the end it is the patient herself who is responsible for her life; the surgeon is just the surgeon, nothing more; and the surgery alone consumes all his energy

long-term objectives

to establish a lasting VVF service with ultimately the total eradication of the obstetric fistula, first in Nigeria but later on also in the rest of Africa and the whole world to keep the existing expertise available for present and future fistula surgeons

short-term objectives

to further upgrade the repair and training services in the existing centers and to start new centers; <u>masterplan:</u> to establish a VVF-repair center in each of the 36 states of Nigeria and to have a VVF-training center in each of the 6 geopolitical zones of Nigeria; with a population of at least 170 million people

to train doctors, nurses and other health personnel in the complicated (surgical) management of the obstetric fistula

to produce training materials and surgical handbooks with in-depth description of anatomic tissue losses, classification of vvf and rvf, description of continence mechanisms, immediate management, step-by-step operation techniques of fistula and (postrepair) intrinsic/stress incontinence etc

to conduct clinical scientific research, to establish a comprehensive database and to prepare evidence-based scientific articles

achievements

individual VVF-repair centers

in **1984** the project was started in Katsina State in Babbar Ruga Hospital which is still functioning as the base for the whole project where so far 12,605 VVF/RVF-repairs have been performed and which has been developed into an (inter)national VVF-training center since 1987; besides this there are smaller services in Funtua, Malumfashi; Kankiya, Daura and Katsina itself by doctors who have been trained in the project

in **1990** the VVF-repair service and VVF-training center was started in Kano State in Laure Fistula Center in Murtala Muhammad Specialist Hospital where 8,604 VVF/RVF-repairs have been performed so far; besides this, there is a smaller service in Danbatta and Wudil by doctors trained within the porject

in **1994** a VVF-repair service was started in Sokoto State in Specialist Hospital and later shifted to Maryama Abacha Women and Children Hospital where 2,708 VVF/RVF-repairs have been performed so far

in **1996** a VVF-repair service was started in Jigawa State first in Hadejia and later shifted to Special VVF Unit in Jahun Hospital where 2,442 VVF/RVF-repairs have been performed

in **1996** a VVF-repair service was started in Kebbi State first in the Specialist Hospital and later shifted to Special Fistula Hospital where 1,675 VVF/RVF-repaires have been performed

in **1998** a VVF-repair service was started in Zamfara State in Faridat Yakubu VVF Hospital in Gusau where 1,095 VVF/RVF-repairs have been performed

in **1998** a VVF-repair service was started in Kaduna State in Kofan Gayan Hospital in Zaria where 902 VVF/RVF-repairs have been performed

in **2003** a VVF-repair service was started in Ebonyi State in Southern Nigeria (where the need is as big as in northern Nigeria) in Ebonyi State University Teaching Hospital in Abakaliki where now a special VVF-hospital has been constructed with 387 VVF/RVF-repairs

in **2008** a VVF-repair service was started in Yobe State in the Federal Medical Center in Nguru where 70 VVF/RVF-repairs have been performed

in 1996 in a tripartite agreement between Katsina, Maradi and Zinder Governments it was decided to work closely together with République du Niger

in **1996** a VVF-repair service was started in Départment de Maradi in Centre Hospitalier Départemental in Maradi

in **1998** a VVF-repair service was started in Départment de Zinder in Maternité Central in Zinder where later on a special VVF unit was constructed

in **2004** a VVF-repair service was started in Départment de Niamey first in Centre Hospitalier Régional de Poudrière and later shifted to Hôpital National in Niamey; a new special VVF Hospital is under construction

in **2009** a VVF-repair service was started in Départment de Tahoua in Maternité Tassigui in Tahoua after Dr Moustapha Diallo had been trained by the chief consultant

the day-to-day running of all these centers is done by doctors and nurses who have been trained extensively by the chief consultant within the project; in order to maintain our state-of-the-art standard, to help with the highly complicated surgery and to supply on-the-job training for doctors and nurses the chief consultant + team visits these centers on a **regular base**

traveling rhythm

we continue our regular visits to all the Nigerian centers on weekly tours of 1,200-1,500 km on the extremely dangerous and long roads of Nigeria

on our irregular visits to République du Niger the roads are even longer and more dangerous

activities

surgery

over the year a total of 2,386 procedures were performed in the 13 different centers making a grand total of 32,059 operations: 29,036 VVF-repairs and 3,023 RVF-repairs

postgraduate training

over the year a total of 8 doctors and 4 nurses/midwives were trained making a grand total of 730 persons: 329 doctors, 330 nurses and 71 other persons

workshops

the consultant surgeon + team participated in 6 workshops in Abakaliki, Nguru, Birnin Kebbi, Sokoto, Niamey and Tahoua-Zinder making a

grand total of 30 workshops

research

this is a continuous process; the intention was, is and will be to make complicated things simple, safe, effective, feasible, sustainable and payable under African conditions ... and we were able to develop **evidence-based solutions for each and every problem**

database

a comprehensive database has been developed where the chief consultant has entered his personal obstetric fistula experience consecutively from the very first to the last patient with up to 256 parameters per patient

scientific work

we participated in the 2nd ISOFS conference 2009 in Nairobi in Kenya with 7 presentations

state-of-the-art surgery

each fistula needs its own specific customized approach as based on a careful assessment of the qualitative and quantitative amount of tissue loss: a combination of science and art based upon a scientific classification state-of-art operation principles and techniques have been developed for each type with **evidence-based prognosis** as to healing and continence

export of expertise to the industrialized world

since the chief consultant surgeon is in the unique position to study the anatomic tissue loss of the pelvis floor structures and the urine/stool continence mechanism in all its stages, it is high time to export his insight and evidence-based experience to the industrialized world especially about topics such as genuine urine stress incontinence and sphincter ani rupture as well as 3° total cervix prolapse

funding

basically the project is funded by the Federal Government and by the individual State Governments but this is not sufficient

further funding came from several organizations like Rotary International and usaid-acquire but it was insufficient by far

luckily after 3 years of struggling we found a new major donor from 2010 onward in waha-international

new nation-wide development

the Federal Ministry of Health, the Federal Ministry of Women Affairs and the individual State Governments are becoming more and more involved in the project

a national strategy to treat and eradicate the obstetric fistula has been finalized; now it is waiting for implementation

construction of a National VVF Hospital in Abuja is under way

new world-wide development

our own International Society of Ostetric Fistula Surgeons held its second ISOFS conference in December 2009 in Nairobi in Kenya, and it was a huge success; we would like to develop it further into a real professional organization

strength of the project

its **rare meticulous evidence-based complete documentation** by individual electronic systematic examination and operation reports, electronic database with almost 4,000,000 entries, real prospective research, more than 150,000 digital and other photographs, some 50 hours of digital video takes of operation techniques, long-term follow-up over years, real scientific classification and 26 annual reports etc etc **for the whole world to see**

conclusion

though there is continuous improvement in the quantity and quality of this project in terms of service, training and research there is a long and difficult road in front of us

kees waaldijk MD PhD chief consultant surgeon

31st of December 2009

fistula surgery 1984-2009

	ebonyi	jigawa	kaduna	kano	katsina	kebbi	sokoto	zamfara	yobe	rép nige	er
	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RVF	VVF/RV	F VVF/RVF	total
1984	-	-	-	-	83 6	-	-	-	-	-	89
1985	-	-	-	-	196 20	-	-	-	-	-	216
1986	-	-	-	-	260 18	-	-	-	-	-	278
1987	-	-	-	-	318 7	-	-	-	-	-	325
1988	-	-	-	-	353 31	-	-	-	-	-	384
1989	-	-	-	-	464 21	-	-	-	-	-	485
1990	-	-	-	222 25	416 29	-	-	-	-	-	692
1991	-	-	-	248 17	195 4	-	-	-	-	-	464
1992	-	-	-	348 27	529 34	-	-	-	-	-	938
1993	-	-	-	416 35	488 62	-	-	-	-	-	1,001
1994	-	-	-	373 43	496 45	-	42 -	-	-	-	999
1995	-	-	-	373 51	537 51	-	161 11	-	-	-	1,184
1996	-	86 -	-	311 37	562 60	41 -	98 5	-	-	66 2	1,268
1997	-	211 4	-	295 38	513 55	107 2	181 14	-	-	33 2	1,455
1998	-	185 5	42 4	278 28	416 60	37 4	288 34	30 6	-	43 4	1,464
1999	-	30 3	37 3	280 36	441 62	80 5	238 12	64 3	-	49 2	1,345
2000	-	204 7	102 7	283 41	420 60	108 4	134 16	102 5	-	69 7	1,569
2001	-	320 27	80 1	415 41	515 55	98 4	157 9	65 5	-	74 5	1,871
2002	-	383 26	44 2	464 49	453 41	113 3	144 7	42 3	-	82 3	1,859
2003	48 5	245 15	39 1	376 52	475 51	96 4	151 7	35 4	-	56 3	1,663
2004	24 2	159 17	59 5	410 33	496 64	65 2	119 6	22 -	-	115 8	1,606
2005	12 -	117 9	31 4	507 39	525 47	208 5	303 22	145 3	-	79 6	2,062
2006	10 2	5 -	65 19	368 91	508 83	156 5	176 17	147 2	-	161 8	1,823
2007	11 1	61 3	114 4	510 97	602 117	170 6	90 5	166 2	-	150 5	2,114
2008	75 3	83 5	146 8	555 59	584 89	168 7	159 7	175 3	37 4	164 15	2,346
2009	180 14	225 7	80 5	538 195	390 198	172 5	90 5	65 1	23 6	175 12	2,386
total	360 27	2,314 128	839 63	7,570 1,034	11,235 1,370	1,619 56	2,531 177	1,058 37	60 10	1,316 82	31,886

total VVF-repairs and related operations: 28,902 + in workshops 134 = 29,036

total RVF-repairs and related operations: 2,984 + in workshops 39 = 3,023

grand total 32,059

success rate at VVF closure: 90% per operation at early closure: 95% per operation

success rate at RVF closure: 85% per operation

wound infection rate: < 0.5% postoperative mortality rate: < 0.5%

final success rate (after one or more operations): > 97%

final severe **incontinence rate** after successful closure: 2-3%

oper	rations chie	f consultant	1984-2009
Nigeria	VVF	RVF	total
ebonyi	43	6	49
•	27	4	31
jigawa			
kaduna	489	84	573
kano	5,353	917	6,270
katsina	9,021	1,298	10,319
kebbi	208	30	238
sokoto	1,033	145	1,178
yobe	38	10	48
zamfara	204	20	224
République du Nig	er		
maradi	107	13	110
niamey	102	11	113
tahoua	13	1	14
zinder	222	23	245
Ethiopia			
addis ababa	27	13	40
yirgalem	5		5
Kenya			
machakos	13	2	15
Tanzania			
dar es salaam	51	7	58
mwanza	14	2	16
Burkina Faso			
dori	18	3	21
Holland	6	2	8
total	16,984	2,591	19,575

performance of trainees 1984-2009

the following is a rough estimate of what trainee doctors have performed after their training though we have lost contact with most of them

Dr Said Ahmed	5,000 repairs
Dr Immam Amir	3,500 repairs
Dr Kabiru Abubakar	2,500 repairs
Dr Marietta Mahendeka	2,200 repairs
Dr Halliru Idris	1,800 repairs
Dr Sa'ad Idris	1,200 repairs
Dr Hassan Wara	1,000 repairs
Dr Khisa Wakasiaka	900 repairs
Dr Lucien Djangnikpo	900 repairs
Dr Abdulrasheed Yusuf	750 repairs
Dr Zubairu Iliyasu	750 repairs
Dr Lawal al Moustapha	750 repairs
Dr Abdoulaye Idrissa	750 repairs
Dr Julius KIIRU	600 repairs
Dr Fred Kirya	500 repairs
Dr Aliyu Shettima	500 repairs
Dr Idris Abubakar	450 repairs
Dr Meryl Nicol	400 repairs
Dr Moses Adeoye	400 repairs
Dr Odong Emintone	400 repairs
Dr Jabir Mohammed	300 repairs
Dr Dantani Danladi	250 repairs
Dr Aminu Safana	150 repairs
Dr Isah Shafi'i	150 repairs

13

other trainees: no data available

documentation + fistula research 1984-2009

documentation

the strength of the project is the complete systematic meticulous documentation by over 19,500 individual computerized comprehensive reports of history, findings, operation procedures and evidence-based results of each patient (from the very first to the last in a consecutive way) combined with prospective studies; as well the findings are documented by schematic drawings and some 40,000 full-color slides & 100,000 full-color digital photos and the different operation techniques by some 80-100 hours of full-color analogous/digital videotapes; from each report we make 2 hard copies

the patient gets her own card in a plastic map with date and type of operation which she presents any time she comes for follow-up; at any postoperative follow-up, normally 5x from 2 wk up to 6 mth but even years later, the findings are written down on the hard copy and later entered into the computerized report which contains up to 250 different parameters

from time to time an analysis is made of the evidence-based results to draw sensible conclusions about the operation techniques and the project as a whole

the documentation is time consuming and takes stamina but without documentation there is no feedback and no proof

research

this is a continuous process, first in a retrospective way but from 1988 onwards, only in a **prospective** way

only by clinical research we came far and found **scientific**, **theoretic and practical** solutions for each and every problem encountered

it resulted in a long list; the most important are

PhD degree at University of Utrecht in 1989 about the obstetric fistula

scientific classification of VVF with consequences for operation technique and evidence-based prospective outcome as to closure and continence

scientific classification of RVF with consequences for operation technique

secondary prevention by the immediate management

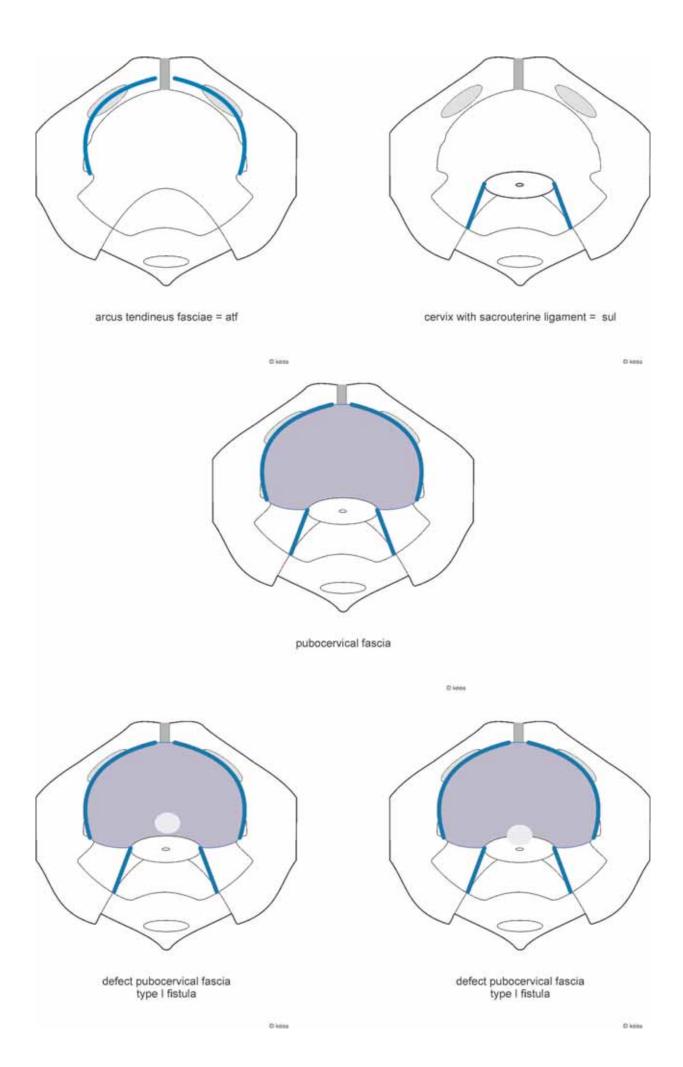
prevention of postrepair incontinence by meticulous repair of the pubocervical fascia

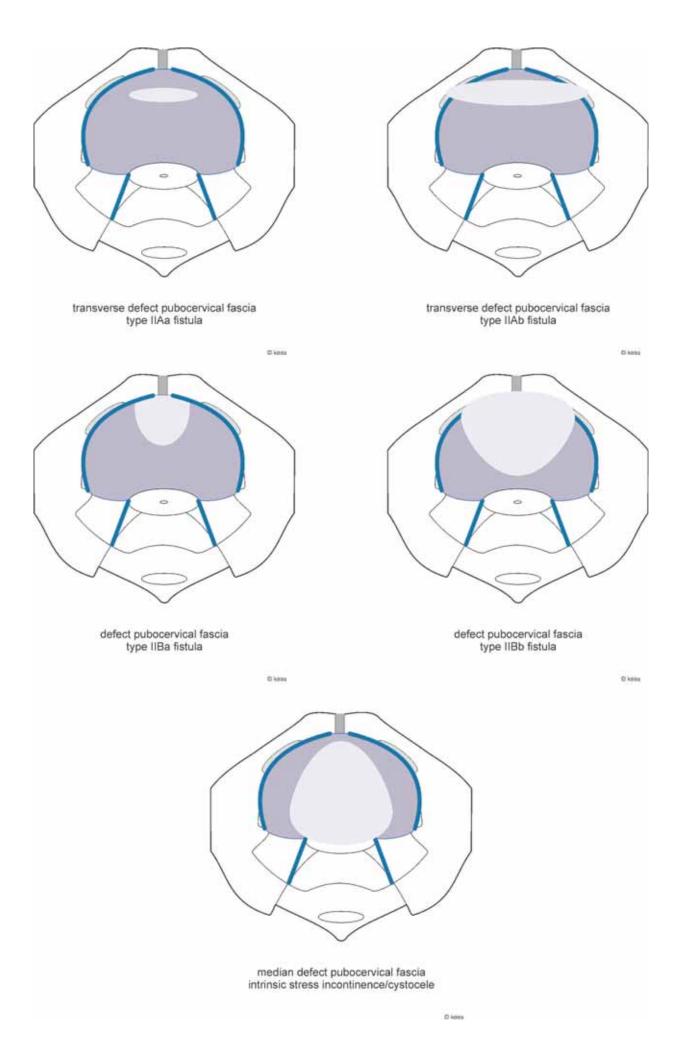
physiologic operation technique for sphincter ani rupture

mini-invasive uterus-saving operation for total 3° cervix prolapse

the philosophy of minimum approach proved highly efficient and successful

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workshops

there are several general and/or specific objectives: to operate a large number of patients within a short time, to demonstrate the **state of the art** operation techniques, to give high-quality lectures, to tackle a specific problem (stress incontinence, urinary diversion), to promote spinal anesthesia, to initiate doctors with low experience, to further train doctors with experience on an advanced level, to train nurses at all levels, to start a vvf service in a certain area and for advocacy and publicity

duration

from a minimum of 2-3 days to start a vvf service up to 2 weeks if large numbers of patients are available and reliable postoperative care can be secured

minimum number of patients

for a 1-week workshop 25-30 patients and for a 2-week workshop 40-50 patients, otherwise there is no cost-benefit effect

venue

any hospital which can handle the (large) number of patients to be operated within a short time: operation theater, autoclave, pre-/postoperative beds and trained personnel

equipment

if one/two fistula surgeon-trainer: one/two fistula operating table(s) with one/two full set(s) of instruments

pre-workshop screening

the (fistula) doctor of the hospital together with his staff is responsible to collect and screen the patients already far in advance

the logistic officer has to make all the necessary arrangements for accommodation, feeding and transport etc

facilitators

one or two experienced fistula surgeon-trainers, one or two experienced fistula operation theater nurses, one or two experienced spinal anesthesia nurses or doctors and two experienced pre-/postoperative nurses and one logistic officer

trainees

per trainer 3-4-5 doctors together with their operation theater nurse, their anesthetic nurse and their pre-/postoperative nurse

however, if the workshop is meant to start a vvf-service more doctors and especially more nurses and midwives should attend

workshop day-by-day

first day: opening, introduction, questionary by trainees for self evaluation and then history taking and examination of the patients, operation time-plan for each day from second day onwards: wardround, operations with step-by-step demonstration of state of the art techniques, simple operations by the trainees under close supervision, pre-, intra- and postoperative questions and answers, lecture(s) and wardround last day: ward round, evaluation by all participants, handing out certificates, closure

postworkshop follow-up

the fistula doctor of the hospital and his staff are responsible for the further postoperative care and follow-up of the patients

philosophy

since the emphasis should be placed upon the quality and not the quantity it is better to execute small 4- to 5-day well organized workshops with small numbers of patients than large 10- to 14-day workshops with large numbers of patients where the organization on ground and good postoperative care being the weakest part cannot be ensured

optimal workshop

identify an area where the obstetric fistula is highly prevalent, select an obstetric fistula team, send them for training, this team selects and screens patients and then makes sure the conditions are ok, then invite real fistula surgeon(s) + team the real expert fistula surgeon(s) + team in combination with the obstetric fistula team on ground screens all the patients for a final selection and sets the objectives opening ceremony and handing out of a questionnaire for self-evaluation starts operating whilst demonstrating the step-by-step technique followed by questions& answers about the procedure and theoretical lectures

during the year the chief consultant + team (co)facilitated the following 6 workshops

january 2009 workshop in southeast fistula center in abakaliki: 25 procedures

march 2009 workshop in federal medical center in nguru: 14 procedures

july 2009 workshop in hôpital national in niamey: 23 procedures

july 2009 workshop in special fistula hospital in birnin kebbi: 23 procedures

october 2009 workshop in maryam abacha hospital in sokoto: 23 procedures

november 2009 workshop in maternity in tahoua and zinder: 24 procedures

Ebonyi State VVF Workshop II

Southeast Fistula Center

Ebonyi State University Teaching Hospital

executive summary

the obstetric fistula constitutes a major health problem in Ebonyi State as well; contrary to the belief of many people who seem to think that it is eradicated and not existing in the Eastern, Southern and Western parts of Nigeria

this was demonstrated by the fact that some 450 patients had been collected within a couple of weeks for us awaiting surgery

this was the second time the national vvf team visited the hospital and we were impressed by the changes

a new special VVF Hospital had been constructed within the compound of the Ebonyi State University Teaching Hospital with fine facilities to work

we were also able to participate in a 1-day stakeholders meeting between Federal Government; Ebonyi State Government, UNFPA and USAID-ACQUIRE

during a 4-day workshop we were able to perform a total of 21 operation (all vvf-repairs) and 2 catheter treatment in a total of 23 patients, though the actual duration was 9 days including the 4 days of travelling + 1 day stake holders meeting

we are sure this new center will be of tremendous help in the fight against the obstetric fistula in the south-eastern part of Nigeria

though we are willing to assist them from time to time this can only be done on an irregular base considering the long and dangerous roads to cover a distance of almost 1,100 km

Ebonyi State VVF Workshop II

30th january thru 2nd february 2009

day-to-day report

introduction

this was the second time the chief consultant and his team visited Ebonyi State to assist them with their obstetric fistula project

more than 450 patients had been collected during a couple of weeks showing that the obstetric fistula is a major public health problem in the south-eastern part of Nigeria

a fine new special VVF Hospital had been constructed which is planned to serve first as a permanent vvf-repair service and later on as a vvf-training unit

day-to-day report

27th january 2003

traveling from Katsina by car on dangerous roads to Lokoja, the fish town, where this time we were able to get fantastic barbecued catfish; however especially the road between Abuja and Lokoja proved to be extremely dangerous with heavy traffic where one needs constant anticipation, steely nerves and quick reactions to avoid serious and **deadly accidents**

28th january 2009

we continued our trip from Lokoja via Enugu to Abakaliki where we warmly received by dr sunday adeoye and were lodged in the same excellent government guest house; there were some 450 patients waiting for us; now we could work in a fine newly constructed special VVF Hospital

29th january 2009

participating in a stake-holders meeting with federal ministry of health, ebonyi state government, unfpa, usaid-acquire and others; later on tour of the new hospital and preparation for surgery

30th january 2009

surgery

four operations: one patient with type IIAb fistula, one patient with fistula type IIAb operated 1x, one patient with mutilated post IIAb incontinence and "healed" sphincter ani rupture operated 2x, one patient with strange IIAa fistula and ba hanya,

wardround

31st january 2009

wardround

surgery

five operations: one patient with scarred lungu type IIAb fistula operated 1x, one patient with lungu type IIAb fistula operated 2x, one patient with type IIAb fistula operated 1x, one patient with extensive IIAa fistula and neg AR and bilateral saddle anesthesia leaking for 40 years and never operated, one patient with type I fistula operated 1x

wardround

1st february 2009

wardround

surgery

seven operations: one patient with impacted bladder stone and type IIAb fistula operated 3x, one patient with overflow incontinence due to severe post IIAb uv-stricture operated 3x, one patient with IIAb fistula and separate iatrogenic ureter type III fistula R operated 2x, one patient with type IIAb fistula, one patient with type IIAb fistula, one patient with intracervical type I cs-fistula and severe obesity

wardround

2nd february 2009

wardround

surgery

five operation: one patient with intracervical type I cs-fistula, one patient with last resort operation for mutilated type IIAa fistula operated 1x and leaking 50 years, one patient with large type IIAb fistula operated 2x, one patient with minute type IIAa fistula leaking 30 yr and never operated, one patient with assessment of inoperable type IIAb urine fistula and type Ic stool fistula; and catheter treatment for one patient with long-standing atonic bladder

wardround

3rd february 2009

we left abakaliki early in the morning at around 8.30 hr, had some difficulties in tracing the road in Enugu and again on the "highway" but arrived safely in Lokoja where we had fish again

4th february 2009

we left Lokoja and having survived the Lokoja-Abuja road where abdullahi and kabir bought some rotten smoked fish in the evening we arrived safely in Katsina

conclusion

it was a fine workshop where **21 vvf operations** and **2x catheter treatment** were performed in 23 patients; however considering the distance this can only be done on an irregular base

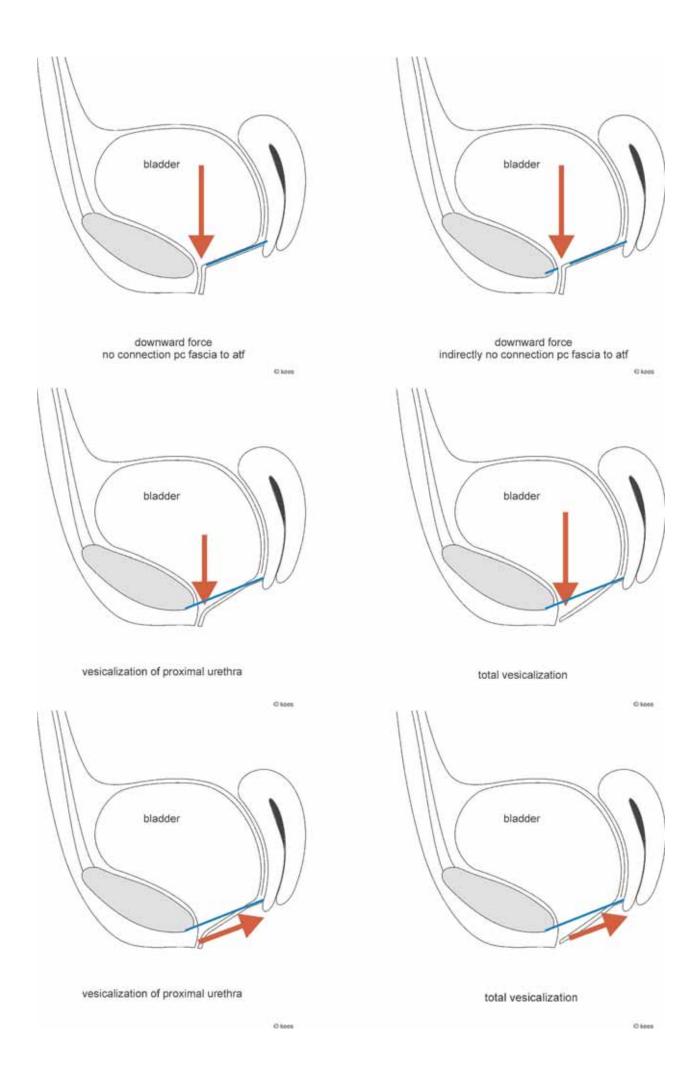
kees waaldijk MD PhD

15th february 2009

chief consultant surgeon

many thanks to

Dr Sunday Adeoye and all the staff of the **SOutheast fistula center** within ebonyi state university teaching hospital for their organization and support Ebonyi State Government unfpa usaid-acquire



second vvf workshop for yobe state

federal medical center nguru

10th thru 13th of march 2009

introduction

we returned to nguru to collaborate in order to set up a regular vvf service; all in line with the national vvf masterplan that each state should have its own vvf-repair center

day-to-day report of the workshop

tuesday 11th march 2009

travelling from Kano to Nguru, having perfomed 1 repair in laure fistula center in kano, some 250 km together with our friends from ethiopia

wednesday 11th march 2009

surgery

<u>six</u> procedures were performed in 5 patients: circumferential repair with pcf fixation of type IIAb fistula, second stage circumferential repair of type IIAb fistula (3x operated) after cystostomy/stone removal, repair of minute type I fistula (2x operated), last resort final repair of "inoperable" type IIBb fistula (operated 2x), repair of type IIAa fistula with repair of rvf type Ia (continuous diarrheic stool contamination) and circumferential repair of type IIAb fistula (1x operated)

wardround

thursday 12th march 2009

surgery

seven procedures were performed in 7 patients: assessment of inoperable extensive type IIBb fistula, repair with pcf fixation of type IIAa fistula (1x operated), continent urethra reconstruction of type IIBa fistula, last resort final primary suturing of "inoperable" mutilated extensive type IIAb fistula (2x operated), circumferential repair with pcf refixation of type IIAb fistula (2x operated), highly complicated repair of type IIAa fistulas (1x operated) and circumferential repair with pcf fixation in type IIAb fistula (2x operated)

wardround

friday 13th march 2009

surgery

two procedures were performed in 2 patients: repair with pcf fixation of type IIBb fistula (operated 2x) and complicated repair of mutilated type IIAa fistula (2x operated)

wardround

followed by a fine meal and we proceeded on our trip back via kano where we dropped our ethiopian friends (travelling back to ethiopia) and then up to katsina over in total some 500 km and we arrived safely at 18.30 hr

a **total of 22 hours** were spent during this workshop on surgery and wardrounds and another **14 hours** on traveling

conclusion

it was a fine workshop as second step to have a functioning vvf center in yobe state where a total of 14 state-of-the-art operations were performed in 13 patients whilst 1 patient was classified as inoperable

kees waaldijk MD PhD chief consultant fistula surgeon

20th of march 2009

many thanks to:

dr mohammed b kawuwa, dr a a kullima, alhaji hassan z tagali and mrs yemisi e ojo for their dedication/commitment/organization and to the management and all the staff of **federal medical center nguru** for their support

vvf workshop Niamey

hôpital national niamey

executive summary

conform our memorandum of understanding this was the **5th** visit to niamey; trained staff from zinder and taoua had been invited as well

the hospital becomes more and more crowded with "incurable" patients who have been operated many times with poor results

more than 60 patients had been selected and we decided to operate according to the list prepared by dr abdoulaye idrissa irrespective of the number of previous operations

the workshop went smoothly and we performed **23 operations** in **23 patients**; however, only 3 patients presented themselves with straightforward fistulas, the rest of the fistulas were highly complicated to almost impossible

only 5 patients had never been operated whilst the rest had been operated from 1 to 8 times; and 4 patients had been planned for diversion

from our findings it became clear that a sling operation for postrepair incontinence or as additional procedure in fistula repair does not function

since it does not make sense to continue operating and operating we classified our procedure in 6 patients as **last resort final**

for the theoretical part of the workshop **4 lectures** were given about the complex trauma of the obstetric fistula, the classification of vvf/rvf, the immediate management and counselling of the patients

with the unfpa country representative we discussed some of the obstacles and how to proceed with training and workshops in maradi, niamey, taoua and zinder

vvf workshop niamey

hôpital national niamey

4th of july thru 11th of july 2009

day-to-day report

saturday 4th of july

since we experienced some trouble at the border last year we decided to travel in the afternoon to maradi, some 90 km from katsina, where we visited the hospital and spent the night in jangorzo hotel; this time we passed the border without any trouble

sunday 5th

we left the hotel at 7.30 hr, had our coffee and fried eggs at the maishai and started the 650 km journey in our toyota jeep; the road was in better condition that last year, abdullahi started to drive and halfway kees took over; still it took us some 9 hours before we arrived safely in niamey at around 17.00 hr where we booked in at sahel hotel where we were met by dr abdoulaye idrissa

monday 6th

we proceeded to the Hôpital National Niamey, the venue of the activities, where we were welcomed by dr abdullahi idrissa, our contact person in niamey

we disciussed how to proceed and settled on starting in the morning at 8.30 until 18.00; we decided again that the anesthesia was the sole responsibility of the anesthesia department of the hospital

a total of 48 patients were waiting for us to be operated; most of them had been operated from 1 up to 10 times by various surgeons from various teams; only few had never been operated but even these patients had complicated fistulas

surgery:

four operations: 1 patient with new extensive fistula type **IIBb** who had been operated 3x, delivered 2x and then developed a new fistula, 1 patients with highly complicated fistula type **IIAb** operated 8x, 1 patient with post **IIBb** intrinsic incontinence operated 7x, and 1 patient with fistula type **IIBa with stone** operated 6x including 2x sling and planned for diversion and then wardround: from **8.30 to 19.00 hr**

tuesday 7th

surgery:

five operations: 1 obese patient with lungu fistula type **IIAb** operated 1x, 1 patient with lungu fistula type **IIAb with intrinsic incontinence** operated 4x, 1 patient with post **IIAa** intrinsic incontinence operated 3x including 1x sling, 1 patient with lungu fistula type **IIBb** operated 8x, 1 patient with type **IIBa** operated 5x including 2x neourethra and 1x sling and then wardround; from **8.30 to 19.00 hr**

wednesday 8th

surgery:

four operations: 1 obese patient with fistula type **IIBb** operated 5x including 2x neourethra and 1x sling, 1 patient with fistula type **IIBa** operated 1x, 1 patient with fistula type **IIBb with stone** operated 3x, 1 patient with **inoperable extensive** type **IIAa** operated 3x and then wardround

we stopped at around 15.30 hr and then it was time for lectures by the chief consultant surgeon: **a.** the complex trauma of the obstetric fistula, **b.** classification of vvf and **c.** the immediate management by catheter and/or early closure, then **d.** coun selling of the patients by alhaji kabir and alhaji abdullahi; **up to 19.00 hr** members of the press had been invited; it was on national television the same night

thursday 9th

surgery:

six operations: 1 patient with large type IIAb never operated, 1 patient with mutilated fistula type IIBb operated 1x, 1 patient with fistula type IIAa never operated, 1 patient with fistula type IIAb never operated, 1 patient with fistula type IIAb never operated and 1 patient with post IIAa intrinsic incontinence grade III operated 1x, and then wardround; from 8.30 to 18.00 hr

we met with the chief surgeon dr saibou, and at 18.00 hr had a meeting with the unfpa country representative where we discussed some of the obstacles and how to proceed with training and workshops in maradi, niamey, taoua and zinder

friday 10th

surgery:

four operations: 1 patient with fibrosed fistula type **IIAa** operated 1x, 1 patient with **highly complicated** fistula type **I**, 1 patient with fistula type **IIAb** + **intrinsic incontinence** operated 3x and 1 patient with fistula type **IIAa** never operated and then wardround; from **8.30 to 16.00 hr**

afterwards we visited the new vvf center and then had some discussions with the medical director of the hospital and dr idrissa in the hotel

in the evening we were invited by dr abdoulaye idrissia and his wife in their house where we had a fine dinner: we had some difficulties in finding the way to the hotel since it was far away at the outskirts of town and we were not familiar with the road

saturday 11th

after coffee and eggs at the maishai whom we recommend for training by danmalam of sokoto, we set out at around 8.00 hr, however 50 km out of niamey 2 out of the 5 fan belts of the jeep broke, having assessed the damage we concluded that we could proceed since the fan belt of the radiator was still intact, so we did not make an attempt to look for a mechanic in order not to loose valuable time; kees had to take over from abdullahi who did not feel comfortable anymore; after the whole day travelling back the same long road and passing the border without wahalla we arrived safely though tired in katsina at around 18.30 hr mun gode Allah

conclusion:

it was a fine workshop; however, only 3 patients presented themselves with straight forward fistulas, the rest was highly complicated to almost impossible; the sling does not contribute to anything in fistula surgery; since it does not make sense to continue operating and operating we classified our procedure in 6 out of the 23 patients as **last resort final**.

kees waaldijk, MD PhD chief consultant fistula surgeon

31st of July 2009

many thanks to dr idrissa abdoulage and all the staff of hôpital national niamey

vvf workshop kebbi state

executive summary

due to logistic problems and financial constraint we changed our policy recently from 1- to 2-day visits to different centers into 5-day workshops in order to have an optimal impact

conform our new policy we were asked by usaid_acquire to go to birnin kebbi since there were several highly complicated fistula patients waiting for operation

unfortunately, the new good-quality operating table could not be used since and the inclination and the height are not sufficient to perform fistula surgery; so we had to rely upon the old table

most of the patients had been operated several times by different (in)experienced surgeons with substantial additional surgical trauma; the surgical interventions varied from 1 to 4 times; little or half knowledge is dangerous

a **total** of **22 complicated operations** and **1 catheter** treatment were performed in 20 patient out of whom only 2 had never been operated before

in 3 patients the vvf and rvf were operated in the same session

in 9 patient an operation was performed because of post **IIAb**, post **IIBa** or post **IIBb** total urine intrinsic_stress incontinence grade III

like other centers this special hospital is becoming a fistularium where the inoperable patients stay for the rest of their life; therefore in 7 patients it has been indicated in the operation reports and their hospital files: **last resort final**

the young doctor i/c of the hospital needs further theoretical and surgical training in the basics of surgery and in the surgical management of the obstetric fistula; until then and also later he should restrict himself to things he can handle

vvf workshop kebbi state

special fistula hospital

monday 27th thru friday 31st of july 2009

sunday 26th of july 2009

we left katsina at around 11.00 hr and after some 600 km by toyota jeep we arrived safely in birnin kebbi at around 18.30 hr where we first went to the hospital and then to the hotel; abdullahi and kees driving alternately

monday 27th of July 2009

we proceeded to the special vvf hospital of birnin kebbi, the venue of the activities, at around 8.00 hr and started to work

- four operations: 1 obese patient with mutilated fistula type IIBb with small proximal rvf operated 3x, 1 patient with early fistula type IIAa, 1 patient with fistula type IIAa operated 2x, 1 patient with tricky fistula type IIAa operated 1x and 1 patient with second obstetric fistula type IIAa after successful repair, and then wardround; from 8.00 to 18.30 hr
- four operations: 1 patient with mutilated fistula IIAb with intrinsic in continence III operated 2x, 1 patient with post IIBb intrinsic incontinence III operated 4x, 1 patient with early fistula type IIAb and 1 patient with fistula type IIBb with intrinsic incontinence operated 1x, and then wardround; from 8.00 to 18.00 hr 1 catheter for total early incontinence
- 29.07.09 **five operation:** 1 patient with mutilated extensive fistula type **IIBb** with proximal rvf type **Ia** (same session), 1 patient with mutilated post **IIBb intrinsic incontinence III** operated 3x, 1 patient with **complicated** fistula type **I**, 1 obese patient with post **IIBa intrinsic incontinence III** operated 2x; from **8.00 to 18.00 hr**
- 30.07.09 **six operations:** 1 patient with fistula type **IIAa** following 3rd CS, 1 patient with mutilated multiple fistula type **IIAb** with proximal rvf type **Ib** (same session), 1 patient with post **IIAb intrinsic incontinence III** 4x operated, 1 patient with severe uv-stricture + mutilated sphincter ani rup ture + anorectum trauma + extensive rectum prolapse type **IIb** operated 2x (same session), and then wardround; from **8.00 to 18.00 hr**
- 31.07.09 **three operations:** 1 patient with mutilated post **IIBa intrinsic inconti nence III** operated 4x, 1 patient with severely mutilated fistula type **IIAb** operated 3x and 1 patient with post **IIAb intrinsic incontinence III** operated 1x, and then wardround; from **8.00 to 16.00 hr**

saturday 1st of august 2009

travelling same 600 km back to katsina where we arrived safely mun gode Allah

remarks

the **major** problem is that most patients had been operated several times in different hospitals by different (in)experienced surgeons resulting in substantial **additional surgical** trauma upon the already existing obstetric trauma; little or half knowledge is dangerous

so, most of the surgical procedures were highly complicated to almost impossible; we stuck to the minimum

in 3 patients the vvf and rvf were repaired in the same session

in 9 patients an operation was performed because of post **IIAb**, post **IIBa** or post **IIBb** total urine intrinsic incontinence grade III

another problem is that this hospital is becoming a fistularium where the inoperable patients will stay for the rest of their life and interfere **negatively** with the functioning of the center

therefore in 7 patients it has been written down in their operation reports and in their hospital files: **last resort final** which really means no more surgical intervention

the young doctor i/c needs further theoretical and surgical training in the basics of surgery and in the surgical management of the obstetric fistula

conclusion

it was a fine workshop where **22 operations and 1 catheter treatment** were performed in 20 patients

dr kees waaldijk, MD PhD chief consultant fistula surgeon

5th of august 2009

many thanks to

dr dantani and all the staff of the special vvf hospital birnin kebbi for their continuing support

vvf workshop sokoto state

executive summary

in line with our new policy we were asked by the honourable commissioner of health of sokoto state to come to maryama abacha hospital since there were many obstetric fistula patients awaiting surgery

half of the patients had been operated several times by different (in)experienced surgeons with substantial additional surgical trauma; the surgical interventions varied from 1 to 4 times

during the **5-day workshop** a **total** of **28 complicated operations** were performed **in 27 patient** out of whom 13 had been operated already before; in 1 patient the vvf and rvf were operated in the same session

in 4 patient an operation was performed because of post **IIAb**, post **IIBa** or post **IIBb** total urine intrinsic_stress incontinence grade III

like other centers this special hospital is becoming a fistularium where the inoperable patients stay for the rest of their life; therefore in 3 patients it has been indicated in the operation reports and their hospital files: **last resort final**

though we are visiting this hospital on a regular base since it was constructed in 1997 with some 150-200 operations a year its full potential has never been reached: a major vvf-repair and –training center

with real commitment by all the parties involved the number of operations could easily be doubled or tripled up to a minimum of 400-500 repairs a year

vvf workshop sokoto state

maryama abacha hospital

monday 5th thru friday 9th of october 2009

day-to-day report

introduction

in line with our new policy we were invited by the honourable commissioner of health to come to sokoto since there were many obstetric fistula patients waiting for surgery maryama abacha hospital has all the potentials to become a major vvf-repair center and vvf-training center; however, for whatever reason this goal has never been reached

despite all the setbacks we have never given up assisting the center but we need the real commitment of all parties involved

day-to-day report

sunday 4th of october 2009

we left katsina at around 11.00 hr and after some 450 km by toyota jeep and with some mechanical problems we arrived safely in sokoto at around 18.00 hr

monday 5th of october 2009

we proceeded to the maryama abacha women and children hospital sokoto, the venue of the activities, at around 8.00 hr and started to work

5th october

surgery

five operations: a patient with post **IIAb** total incontinence 4x operated, a patient with mutilated type **IIAa** fistulas operated 2x, a patient with stone-hard uv-stricture operated 2x, a patient with residual type **IIAa** fistula operated 1x, and a patient with extensive **IIAb** fistula

wardround from **8.00 to 18.30 hr**

6th october

wardround

surgery

six operations: a patient with extensive IIAb fistula and a patient with mutilated inoperable type IIBb fistula operated 1x, assessment of patient with type III fistula, a patient with type I cs_fistula, a patient with type IIAb fistula and a patient with type IIAa fistula

wardround from **8.00 to 18.00 hr**

7th october

wardround

surgery seven operations: a patient with large type IIAb fistula, a patient with

type IIAb fistula, a patient with type IIAa fistula, early closure in a patient with type IIAa fistula, a patient with type IIAb fistula and patient

with highly complicated type IIAb and proximal rvf type Ia fistula

wardround from **8.00 to 18.00 hr**

8th october

wardround

surgery six operations: a patient with type IIAb fistula, a patient with mutilated

type **IIAa** fistula operated 2x, a patient with extensive type **IIAa** fistula, a patient with type mutilated type **IIBb** fistula operated 2x, a patient with type **IIBb** fistula operated

3x as last resort

wardround from **8.00 to 18.00 hr**

9th october

wardround

surgery **four operations:** a patient with post **IIBa** total incontinence operated 2x

as last reosrt, a patient with post **IIAb** total incontinence operated 3x as last resort, a patient with post **IIAa** total incontinence operated 3x and a

patient with mutilated type **IIAa** fistula operated 2x

wardround from **8.00 to 16.00 hr**

saturday 10th of october 2009

travelling same 450 km back to katsina where we arrived safely mun gode Allah

time spent

a total of 40 hours were spent on surgery and wardrounds and 15 hours driving during this 7-day trip

conclusion

it was a fine workshop where 28 operations (27 vvf-repairs and 1 rvf-repair) in 27 patients were performed

kees waaldijk, MD PhD chief consultant fistula surgeon

15th of october 2009

many thanks to

all the staff of maryama abacha hospital for their support

vvf workshop tahoua + zinder 2009

executive summary

all in accordance with an agreement from 1997 between the governments of Nigeria and République du Niger the chief consultant and his team have been assisting in training doctors, nurses and other health personnel and setting up a vvf-repair and –training program in République du Niger resulting in 3 vvf-repair centers in zinder, maradi and niamey

in order to establish a new vvf-repair center in tahoua we were invited by UNFPA for a workhop in tahaou in combination with a visit to zinder to operate the highly complicated fistulas

one consultant gynaecologist from tahoua, dr moustapha diallo, had been trained in already in 2008 specifically for this purpose

we were able to treat all the patients in tahoua after which we proceeded to zinder

during these workshops in those 2 centers a total of 23 vvf-repairs and 1 catheter treatment were performed in 24 patients: 12 vvf-repairs and 1 catheter treatment in all the 13 patients in tahoua and 11 complicated vvf-repairs in zinder

we hope this will be the start of a permanent vvf-repair center in tahou; then there remain 2 more regions in République du Niger for an "overall" coverage

however, it must be said that the traveling was murderous to and from tahoua on the extremely dangerous road between guidan roumji and birnin konni reminding us all the time that road traffic accidents are the number one cause of death

vvf workshop tahoua + zinder

maternité tassigui + maternité centrale

8th thru 14th november 2009

day-to-day report

introduction

having trained one consultant gynaecologist from tahoua in 2008, this was our first visit to tahoua in order to assist in setting up a regular vvf-repair service

since the number of patients was not sufficient it was combined with a visit to zinder to operate the highly complicated fistulas

this was in accordance with an agreement between Nigeria and République du Niger for a close cooperation with regards to health problems: in assisting them to set up vvf-repair and -training centers

day-to-day report

sunday 8th of november 2009

we left katsina at around 7.30 hr, crossed the border up to maradi where we picked up our friend lucien and after some 450 km by toyota jeep we arrived safely in tahoua at around 15.00 hr where we first went to the hospital and then after some problems at last we found a hotel; abdullahi and kees driving alternately katsina-maradi-guidan roumji-madaoua-galmi-b/konni-tahoua

monday 9th of november 2009

we proceeded to the **maternité tassigui**, the venue of the activities, at around 7.30 hr and started to work; though the operating table was not a fistula table we were able to operate upon all the 13 patients who were collected for the workshop; a consultant obstetrics/gynecology from Agadez attended to initiate his training

9th november

surgery

four operations: a patient with mutilated yankan gishiri fistula neo urethra type **IIBa** operated 1x, a patient with extensive fistula **IIBb** leak ing 25 yr, a patient with mutilated type **IIAa** fistula operated 2x and a patient with mutilated type **IIAb** operated 1x

wardround from **8.00 to 16.30 hr**

10th november

wardround

surgery

five operations: a patient with early closure of IIAa fistula, a patient with mutilated post IIAb total intrinsic incontinence operated 3x, a patient with long-standing fistula I, a patient with yankan gishiri fistula IIBa, a patient with early closure of large IIAb fistula and a patient with catheter bco total postpartum intrinsic stress incontinence

wardround from **8.00 to 16.30 hr**

11th november

wardround

surgery three operation: a patient with IIAb fistula, a patient with IIAa fistula

with **b** characteristics and a patient with post **IIAb** fistula total intrinsic

incontinence

wardround from **8.00 to 12.30 hr**

in between the Governor of Tahoua paid a visit

we operated upon all the 13 patients who were collected in tahoua

12th november

traveling to zinder from 7.00 to 15.30 hr over 550 km on very dangerous road tahoua-maradi-tasaoua-takieta-zinder where we slept in gouran daga

13th november

surgery

six operations: a patient with mutilated type IIBb fistula operated 2x, a patient with mutilated IIAb fistula operated 4x, a patient with post IIAb total intrinsic incontinence operated 4x, a patient with post IIAb total intrinsic incontinence operated 2x, a patient with post IIAa distal urethra loss type IIBa operated 4x, a patient with mutilated type IIAb fistula operated 2x

wardround from **8.00 to 18.00 hr**

14th november

wardround

surgery

five operations: a patient with type **IIAb** fistula operated 1x, a patient with scarred tract type **III** fistula, a patient with **mutilated** type **IIBa** fistula operated 2x, a patient with post **IIAb** total incontinence, a patient with type **IIAa** fistula

from **8.00 to 16.00 hr**

traveling 250 km back to katsina where we arrived safely at 18-30 hr mun gode Allah

time spent

a total of 40 hours on surgery and 2 full days traveling

conclusion

it was a fine workshop where **23 operations and 1 catheter treatment** were performed in 24 patients; however, the traveling is murderous since the road between guidan roumji and b/konni is extremely dangerous

kees waaldijk, MD PhD chief consultant fistula surgeon

15th november 2009

many thanks to

dr moustapha diallo and his staff from maternité tassigui de tahoua dr lucien djangnikpo and his staff from maternité central de zinder unfpa

peer-reviewed scientific work

scientific papers/PhD thesis/surgical handbooks

k waaldijk the (surgical) management of bladder fistula in 775 women in Northern Nigeria; PhD thesis University of Utrecht, 1989 with peer-reviewed classification of vesicovaginal fistulas k waaldijk a classification of vesicovaginal fistulas according to its anatomic location with regards to operation technic and prognosis; a personal experience in 1,250 patients. IXth Congress European Association of Urologists, 1990 in Amsterdam. Europ Urol J 1990, 18/S1: 33 k waaldiik plan for a VVF-service for (northern) Nigeria and (west) Africa, 1990 clinical and epidemiologic baseline data of 2,500 VVF/RVF patients k waaldijk with special emphasis on the obstetric fistula, 1992 the obstetric fistula; handout (manual) to trainees; first edition 1992 k waaldijk and continuously revised up to 25 editions k waaldijk and y armiya'u the obstetric fistula as a major public health problem still unsolved; Int Urogynecol J 1993; 4: 126-128 k waaldiik step-by-step surgery of vesicovaginal fistulas. Campion press, 1994 k waaldijk the immediate surgical management of fresh obstetric fistulas with catheter and/or early closure. Int J Gynaecol Obstet 1994; 45: 11-6 k waaldijk and t e elkins the obstetric fistula and peroneal nerve injury: an analysis of 947 con secutive patients. Int Urogynecol J 1994; 5: 12-14 a surgical classification of obstetric fistulas. Int J Gynaecol Obstet k waaldijk 1995; 49: 161-163 written training curriculum for doctors and nurses in the (surgical) k waaldiik management of the obstetric fistula, 1996 immediate indwelling bladder catheterization at postpartum urine k waaldiik leakage. Trop Doct 1997; 27: 227-8 k waaldijk the surgical management of the obstetric fistula. Guest speaker at Annual Meeting of International Urogynecologic Association, 1997 in Amsterdam. Int Urogynecol J 1997 k waaldijk the immediate management of fresh obstetric fistulas. Amer J Obstet Gynecol; 2004, 191, 795-9 k waaldijk obstetric fistula surgery; art and science; basics. Printmarkt.eu, 2008

papers presented at congress/meeting

k waaldijk	plan for a VVF-service for (Northern) Nigeria and (West) Africa.1990; presented to UNFPA, WHO, Nigerian Government, Dutch Government, National Task Force on VVF and other organizations
k waaldijk	surgical aspects of vesicovaginal fistulas. First National Workshop on VVF, Kano. July 1990
k waaldijk	preliminary incidence of the obstetric fistula in (Northern) Nigeria. Meeting of National Task Force on VVF. April 1992
k waaldijk	prevalence of the obstetric fistula in (Northern) Nigeria. Meeting of National Task Force on VVF. April 1992
k waaldijk	amenorrhea in vesicovaginal and rectovaginal fistula; findings in 964 consecutive patients. VVF-Project Evaluation Report II. 1992
k waaldijk	evaluation of the National VVF Project Nigeria. 1993. National Task Force on VVF
k waaldijk	evaluation and plan of continuing action. Seminar on VesicoVaginal Fistula. Daula Hotel, Kano. January 1994
k waaldijk	progress made sofar in the (surgical) management of the obstetric fistula. National Workshop on Counseling VVF Patients, Katsina. June 1994
k waaldijk	immediate management of fresh obstetric fistulae according to basic surgical principles. National Workshop on VesicoVaginal Fistulae, Zaria. 1995
k waaldijk	VVF-service in (Northern) Nigeria. Annual Meeting of Association of General and Private Medical Practitioners of Nigeria, Jos. 1996
k waaldijk	evaluation report 1984-97; surgical developments, database, docu mentation and plans for the near/distant future. Strategies in Preven tion of VVF in Nigeria, Jos. February 1997
k waaldijk	new developments in the (surgical) management of the obstetric fistula. International Workshop on VesicoVaginal Fistula, Abuja. March 1998
k waaldijk	immediate (surgical) management of the obstetric fistula: an evaluation of 1,350 patients. 50th Anniversary of Association of Surgeons of East Africa and PanAfrican Association of Surgeons 3rd General Assembly, Nairobi. December 1999
k waaldijk	urethralization and anterior fasciocolposuspension in (post-repair) urine stress incontinence with a too short urethra. Urogynecology Meeting, Overvecht Mesos Ziekenhuis, Utrecht. April 2002

k waaldijk	the obstetric fistula. Africa Regional Congress of International Federa tion of Women Lawyers, Abuja. May 2002
k waaldijk	complex trauma of the obstetric fistula. Annual Congress of Dutch Association of Surgeons, Bussum. November 2003
k waaldijk	the obstetric fistula: management, pre-, intra- and postoperative care, spinal anesthesia, training, surgical techniques etc. WHO meeting of expert fistula surgeons, Geneva. December 2003
k waaldijk	management of the obstetric fistula. UNFPA meeting, Accra. July 2004
k waaldijk	training: introduction, trainees and trainers, curriculum, training module, vvf repair center, vvf training center, vvf rehabilitation center, nation-wide vvf service. UNFPA meeting on training, Niamey. April 2005
k waaldijk	standardization of treatment, training and rehabilitation of obstetric fistu la patients. Workshop by FMOH and UNFPA, Abuja. November 2006
k waaldijk	complex trauma of the obstetric fistula. 37 th Annual Meeting International Continence Society, Rotterdam, August 2007
k waaldijk	how to set up a VVF-repair service. 37 th Annual Meeting International Continence Society, Rotterdam. August 2007
k waaldijk	achievements in obstetric fistula training within National VVF Project Nigeria. 1st ISOFS conference, Addis Ababa, September 2008
k waaldijk	classification of vesicovaginal fistula. 1st ISOFS conference, Addis Ababa. September 2008
k waaldijk	classification of rectovaginal fistula. 1st ISOFS conference, Addis Ababa. September 2008
k waaldijk	peer-reviewed classification of the obstetric urine fistula; as based on tissue loss, operation technique and outcome. WHO meeting on classification, Geneva. March 2009
k waaldijk	scientific classification of the obstetric stool fistula; as based on tissue loss and operation technique. WHO meeting on classification, Geneva. March 2009
k waaldijk	power point presentations about mechanism of (in)continence, prevention of post IIAa repair incontinence, surgery genuine instrinsic incontinence, yankan gishiri fistula, continent urethra reconstruction and immediate management. USAID-ACQUIRE meeting. Kaduna, September 2009

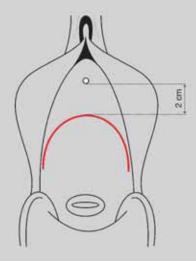
k waaldijk	mechanism of urine (in)continence in the female; with special emphasis on the pubocervical fascia and implications for obstetric fistula surgery. 2nd ISOFS conference, Nairobi. November 2009
k waaldijk	prevention of post IIAa repair incontinence; prospective study in 845 consecutive patients during 4-yr period 2005-9. 2nd ISOFS conference, Nairobi. November 2009
k waaldijk	surgery of genuine intrinsic_stress incontinence; from the biew of an obstetric fistula surgeon; with implications for genuine stress incontinence in general. 2nd ISOFS conference, Nairobi. November 2009
k waaldijk	yankan gishiri fistula; with a report on 577 patients. 2nd ISOFS conference, Nairobi. November 2009
k waaldijk	continent urethra reconstruction. 2nd ISOFS conference, Nairobi. November 2009

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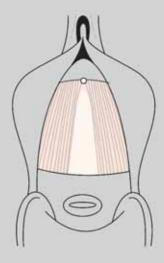


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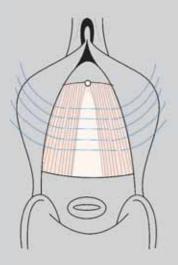
operation technique genuine intrinsic/stress incontinence



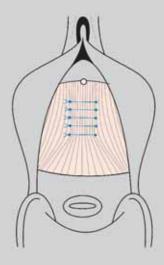
physiologic incision anterior vagina wall



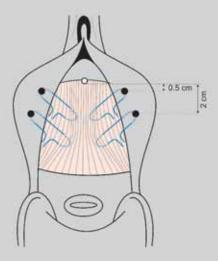
anterior vagina wall dissected median defect pubocervical fascia



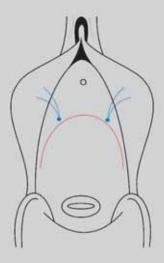
repair/rhaphy pubocervical fascia



repair/rhaphy pubocervical fascia



fixation sutures at 0.5-1 and 2-2.5 cm



fixation sutures tied anterior vagina wall adapted