Transfer of surgical competence in the treatment of intersex disorders in Togo

K. Gnassingbe[1], S. da Silva-Anoma[2], G. K. Akakpo-Numado[1], A. H. Tekou[1], B. Kouame[2], C. Aguehounde[3], L. Coupris[4], R. B. Galifer[5], D. Aubert[6], Y. Revillon[7]

ABSTRACT

Background: To evaluate the impact of scientific seminar on the sexual ambiguity on patients and paediatric surgeons in French-speaking African countries. **Materials and Methods:** This was a report of the proceeding of a teaching seminar on intersex management, which was held from December 4th to 8th, 2006, in the Paediatric Surgery Department of Tokoin Teaching Hospital and the Surgery Department of "Saint Jean de Dieu" Hospital of Afagnan, Togo. **Results:** There were 107 participants [five professors of paediatric surgery, 62 African paediatric surgeons (including 15 from African French-speaking countries), and 40 general surgeons]. The workshop involved a two-day theoretical teaching session (aimed at understanding, recognising, and treating the sexual ambiguities), and practical session; during these sessions different intersexes (one case of mixed gonadal dysgenesis, two of female pseudohermaphroditism, and two of male pseudohermaphroditism), were operated free of charge. Participants expressed satisfaction and confidence with regard to the management of intersex after the seminar. **Conclusion:** This scientific forum allowed possible exchange of competence among the paediatric surgeons with regard to efficient treatment of sexual ambiguities.

Key words: Paediatric surgeons, sexual ambiguities, transfer of competence

DOI: 10.4103/0189-6725.54768

INTRODUCTION

The complexity of intersex, similar to many other congenital anomalies, poses treatment challenges to the African pediatric surgeons. Technological improvements during previous years have permitted a great amelioration in the detection and treatment of some pediatric surgical pathologies in the developed countries; whereas, most of these advances are lacking in many developing (African) countries.[1,2] As a result, the transfer of competence in various forms between the developed countries and the developing countries is the most desired.

One forum to transfer such surgical competence is through seminars. In November 2006, a precongress workshop on paediatric urology and intersex was held in Mombasa, Kenya; as a part of the sixth biennial congress of the Pan-African Paediatric Surgical Association (PAPSA). In December 2006, the French-speaking African Pediatric Surgery Society, Togo, organised a teaching seminar to improve and reinforce the paediatric surgeons from French-speaking Africa countries, on intersex management. This seminar was focused at initiating them to the new surgical techniques in treatment of intersex. The aim of this study was to evaluate the impact of such scientific exchange of competences on patients and paediatric surgeons from the African countries.

MATERIALS AND METHODS

This was a study of the patients treated for intersex during a workshop, held in the paediatric surgery department of Tokoin Teaching Hospital and the Surgery Department of "Saint Jean de Dieu" Hospital of Afagnan, Togo, from December 4th to 8th, 2006. This workshop took the form of theoretical and practical surgical sessions.

Among 11 patients, five had karyotype and genitography, and the rest were excluded for the following reasons: (1) isolated hypertrophied clitoris, (2) micropenis with testicular agenesis toward an infantilism, (3) vaginal agenesis, (4) failure of a masculinising génitoplasty in a male pseudo hermaphroditism, (5) a 23-year old patient, having a congenital adrenal hyperplasia, refused to be feminised, and (6) micropénis associated to hypospadias in whom the hormonal stimulation has not be conducted.

Department of Pediatric Surgery, [1]Lome Teaching Hospital (Lomé- Togo), [2]Yopougon Teaching Hospital (Abidjan - Ivory Coast), [3]Cocody Teaching Hospital (Abidjan - Ivory Coast), [4]Angers Teaching Hospital (Angers-France), [5]LAPEYRONIE Hospital (Montpelliers - France), [6]St Jacques Hospital (Besançon- France), [7]Necker Enfants Malades Hospital (Paris-France)

Address for correspondence:
Dr. Komla Gnassingbe,
Department of Pediatric Surgery,
Lome Teaching Hospital (Prof. Hubert Tekou), PO Box 57, Lomé Togo.
E-mail: jeanpi_gnass2002@yahoo.fr

RESULTS

There were 107 participants [5 French professors of paediatric surgery, 62 African paediatric surgeons (including 15 from African French-speaking countries), and 40 general surgeons].

The different intersex disorders treated during the practical session included one case of mixed gonadal dysgenesis, two of female pseudohermaphroditism, and two of male pseudohermaphroditism. The epidemiological, diagnostic, and therapeutical characteristics of the patients treated during the workshop are represented in Table 1.

Participant's satisfaction and confidence assessed at the end of the seminar with regard to the management of intersex showed high level of confidence in all the participants.

DISCUSSION

The frequency of genital malformations seems on the increase; environmental pollution by pesticides, used to destroy mosquito larvae, has been implicated.[3]

Genital malformations, in particular intersex, are important topics in our countries because of the strong psychological pressure they impose[4] such as stigmatisation and social exclusion leading to suicide in some cases. It is therefore important to recognise them and treat them well.

Although paediatric surgery practice is well established[5] the number of paediatric surgeons varies from one country to another. In Europe, the ratio of paediatric surgeon to the patients varies from 1:424 to 1:35714, per year.[5] In Africa, where 50% of the population is less than the age of 15 years, the ratio is weak with an average of four paediatric surgeons per country. Due to this, the children in Africa with intersex are treated most of the time by urologists, who are not competent in this regard. This situation is compounded by the lack of modern facilities (laboratories, magnifying glasses, and microscopes).

Table 1: Epidemiological, diagnostic, and therapeutic characteristics in the patients treated during the seminar

Age	Sex assignment	Genetic sex	Type of intersex	Surgical treatment
4 years	Female	Male (46XY)	MGD	Gonadectomy feminising genitoplasty (vaginoplasty + clitoroplasty)
3 years	Female	Female (46XX)	FPH (CAH)	TUM feminising genitoplasty vaginoplasty + vlitoroplasty
13 years	Female	Female 46XX)	FPH (CAH)	Vaginoplasty + clitoroplasty
7 years	Male	Male (46XY)	MPH	Uretroplasty (duplay)
16 months	Male	Male (46XY)	MPH	Uretroplasty (duplay-koyanagi)

N°: Number; MPH: Male pseudohermaphroditism; F: Female; CAH: Congenital adrenal hyperplasia; M: Male; TUM: Total urogenital mobilization; FPH: Female pseudohermaphroditism; MGD: Mixted gonadal dysgenesis

These difficulties often push African paediatric surgeons to refer the patients to developed countries for management, with attendant exorbitant cost. Non Governmental Organisations (NGOs) such as, "Terre des Hommes", "La chaîne de l'Espoir", sometimes play some role in assisting these high costs. At times NGOs also collaborate with their western partners to carry out benevolent health expeditions for local treatment of patients suffering from congenital abnormalities, including intersex in Africa.[6] It was in the light of these challenges that the French-speaking African Paediatric Surgery Society recently chose to improve the level of competence of paediatric surgeons concerning the management of intersex by organising a workshop during which some patients with intersex were operated free [Table 1].

The high number of participants in the workshop underscored the perceived interest, in this arrangement. Every practitioner, whether a paediatric surgeon, a general practitioner, a general surgeon, or a urologist, has to be confronted with the difficulties of treating these affections in one's professional life. This probably explained why the general surgeons participated in these teaching seminars and workshops.

The experience from this workshop highlights few facts: (1) the value of cooperation between paediatric surgeons in Africa and the global pediatric surgical community, (2) the late presentation of patients with intersex in some African countries, (3) the potential role of media in health education in Africa, and (4) the need for conducting similar workshops in the future.

We like to conclude that collaborative scientific/surgical workshops appear to facilitate transfer of surgical competence, although evaluation of the aftermaths of this training in a short or midterm is necessary before a definite recommendation.

REFERENCES

1. Harouchi A. Les progrès de la chirurgie pédiatrique moderne ont-ils atteint les enfants africains ? Chir Pédiatr 1990;31:284-6.
2. Balde I, Doumbouya N, Agbo-Panzo D, Diallo AF, da Silva-Anoma S. Panorama de la chirurgie pédiatrique en Afrique. Méd Afr Noire 1999;46:243.
3. Hosie S, Loff S, Witt K, Niessen K, Waag KL. Is there a correlation

between organochlorine compounds and undescended testes? Eur J Paediatr Surg 2000;10:304-9.
4. Lazarovici. Conséquences psychologiques de l'ectopie testiculaire. Chir Pédiatr 1989;30:150-2.
5. Driller C, Holschneider AM. Training in Paediatric Surgery. A Comparison of 24 countries in Europe and other countries around the World. Eur J Paediatr Surg 2003;13:73-80.
6. Gbenou AS, Biotchane I, Fiogbé M, Lokossou T, Biaou O, Adibabi W. Bilan de 4 missions chirurgicales caritatives étrangères au Bénin. Bénin Méd 2002;22:65-70.

Source of Support: Nil, **Conflict of Interest:** None.

EVENTS: MEETINGS AND COURSES

1. MEETINGS

To submit a meeting notice send the following to afranu@yahoo.com: name of meeting group; dates of meeting; place of meeting; telephone and name of person to be called for full information. the Journal reserves the right to decline notices at discretion of editorial office.

September 22-26, 2009 Maiduguri, Nigeria. 8th Annual Conference of Association of Paediatric Surgeons of Nigeria (APSON). There will be a one day pre-conference workshop and live demonstrations on hypospadias repairs and trans-anal pullthrough operations for Hirschsprung's disease by international guest specialists. It promises to be superb; do all you can to be there!

For further information, please contact:
1. Dr Auwal Abubakar. Chairman, local organising committee. E-mail address: walo1ng@yahoo.co.uk OR
2. Prof. O. Adejuyigbe. President, APSON.

E-mail address: sanya_adejuyigbe@yahoo.co.uk

July 6-10, 2010 Dar-es-Salaam, Tanzaniza. 8th Biennual Conference of Pan Africa Paediatric Surgeons Association (PAPSA).
For further information, please contact:
1. Dr Petronilla J. Ngiloi. Chairman, local organising committee.
   E-mail address: pngiloi@much.ac.tz OR
2. Prof. Essam A. Elhalaby. Secretary, PAPSA.
   E-mail addresses: eselhalaby@idsc.net.eg OR eselhalaby@yahoo.com

October 21-24, 2010. 3rd World Congress of Pediatric Surgery, Hotel Taj Palace and Convention Centre, New Delhi, India. There will be a Post Conference Live Operative Workshop at AIIMS, New, from 25th-26th, 2010.

Further information: Prof. Devendra K Gupta, Congress President,
Cell: +91 98100 65280, 98683 97500
Email.: HYPERLINK "http://us.mc1101.mail.yahoo.com/mc/compose?to=secretariat@pedsurgery.in" \t "_blank" secretariat@pedsurgery.in, OR HYPERLINK "http://us.mc1101.mail.yahoo.com/mc/compose?to=wcps.info@gmail.com" \t "_blank" wcps.info@gmail.com
Website: HYPERLINK "http://www.pedsurgery.in" \t "_blank" www.pedsurgery.in

2. COURSES

January 21-22, 2010. Korle-Bu Teaching Hospital, Accra, Ghana. Pediatric anorectal and colorectal surgical problems
Sponsors: Korle-Bu Teaching Hospital, Accra, Ghana in collaboration with the Colorectal Center for Children Cincinnati Children's Hospital Medical Center Cincinnati, Ohio, USA
http://www.cincinnatichildrens.org/colorectal

For more details, Please contact
Dr Afua Hesse, P.O.Box KB 263
Tel: 233-24-437 0429. Accra, Ghana,
E-mail: afuahesse@gmail.com