

## **Egypt**

M. Nasser Kotby (Cairo)

Taken from Gutzmann-Festschrift (1980), addendum by the same author

January 1974 marks the onset of modern scientific phoniatrics in Egypt. Prior to this date only sporadic, sometimes nonprofessional, attempts were made to give clinical services in the field of communicative disorders (Kotby, 1976a).

The modern era of phoniatrics in Egypt was heralded by the specialization of the first Egyptian phoniatrician from Sweden 1973. He was charged with the responsibility of establishing a Unit of phoniatrics and disorders of communication in Ain Shams University Hospitals. He was given a free hand to put the plan of development of this Unit as well as laying the foundations of the profession of phoniatrics and logopedics in Egypt.

The objectives of the plan were put along 2 lines:

- a- Development of clinical services.
- b- Development of a scientific programme.

The first objective, though highly important, will not be discussed in this communication.

The development of a scientific programme in phoniatrics proceeded along 2 main tracks:

1. Acquiring knowledge.
2. Spreading knowledge.

Acquiring knowledge entails carrying out research work to investigate certain questions of actuality whose answers cannot be found in current literature. During the past five years of infancy and early childhood of phoniatrics in Egypt sophisticated research was not possible nor feasible. The urge to acquire knowledge continued, however, on the humble niveau of clinical and field investigations of the problems that popped up during the practice of the profession. The epidemiological pattern of communicative disorders in Egypt were almost lacking when profession was introduced. The need for such a pattern was felt rather heavily when future planning of phoniatric services were asked for. Indirect evidence of the distribution of the various communicative disorders and their incidence was collected from accumulating statistics of the patient population in Phoniatric Clinic. This is of course a highly selected sample. Accordingly a project was planned with the Department of Public Health and Industrial Medicine in Ain Shams University to study the pattern of communicative disorder in 600 school children ranging in age from 6-12 years. Disorders varying from dyslalia to delayed language development of different etiological factors were found in 92 pupils (15,3%). The data are further analysed to be published soon (Massoud and Kotby, 1979). Beside these field investigations, some clinical applied work has been going on. An increasing number of cases with dysphonia were found to have longitudinal furrows on one of both vocal folds (Kotby, 1977). These cases of sulcus glottideus were investigated in order to reach better understanding of the nature of the disease, its phono-pathology and the therapeutic implications. The results of the work which has analysed 5 cases (3 females and 2 males) suggest that the

condition may be a congenital malformation in the ligamentous structure of the vocal folds that presents symptomatically at puberty. The muscles of the vocal folds did not show any deviation from normality as evidenced from electromyographic studies. The patient presents with a dysphonia at an age that makes the clinician suspect a mutational voice disorder. Indirect laryngoscopy preferably under magnification, will confirm the presence of furrowing typical for sulcus glottideus. An air waste is sometimes, but not constantly, found during phonation. The dysphonia is thought to be, however, mainly due to the asymmetry of the vibrator as evidenced by stroboscopic investigations.

Prolonged voice therapy utilizing the Accent Method is thought to be the most effective line of therapy since the improved Bernoulli's effect at the glottis helps to adjust the glottic wave and reestablishes balance of the vibrator. Voice therapy is however, not very effective since patients motivation is not always heightened enough to follow the prolonged course. Teflon injection was not tried.

Observing the accumulated patient material with psychogenic aphonia, the treating team realized that this patient population does not form a homogeneous diagnostic group. At least 2 subgroups could be identified (Kaiser, Kotby and Kotby, 1978). Laryngeal examination showed in both subgroups no departure from normality apart from the frequent occurrence of a posterior glottic waste. On one hand there is the group that shows evident psychiatric ailment in the background. The management of this group is carefully planned with the psychiatrist. It usually necessitates prolonged combined voice therapy and psychotherapy. The results of therapy are less satisfactory and less dramatic than the second group where psychiatric ailments play only a secondary role. In the latter group the patient, who became aphonic for known reasons such as an acute laryngitis or post stripping of the vocal folds has difficulty in regaining the normal pattern of phonation. Cancer phobia plays a noticeable role in this subgroup. The whisper is sometimes extremely hyperactive. The patient usually needs 1-6 sessions to regain a laryngeal tone. Several sessions are needed to stabilize the newly regained voice.

During the 5 years of phoniatic practice in Egypt the technique of microlaryngeal surgery (phonosurgery) was introduced. 60 patients were examined and treated by this technique. The material allowed analysis of a varied repertoire of vocal fold pathology that lead to dysphonia (Kotby and Barakah, 1978). A number of pathological lesions known to be important causes of dysphonia were grouped as secondary to voice abuse-misuse and prolonged irritation of the vocal folds (par excellence smoking). They were referred to as minimal associated pathological (MAP) lesions since they are small structural changes that are caused mainly by a functional ailment. These pathological lesions, essentially benign, had little direct relation to chronic infection of the vocal folds. Most of these lesions will need precise surgical removal under magnification. In some of these pathological lesions postoperative voice training is essential in order to reach optimal voice results. One type of such lesions showed some relation to repeated attacks of acute laryngitis. In this type the vocal folds will be seen smoothly swollen, diffusely red and opaque in appearance. Histopathological examinations revealed chronic inflammation with small round cell infiltration.

Out of the patient population of the phoniatic unit 9.14% presented with isolated phonological errors. The persistence of such isolated phonological error in a relatively late stage of language development is referred to as dyslalia (Kotby and Barakah, 1977). Many patients presented for therapy at a relatively

old age. This is due to the absence of organized phoniatric-logopedic services in schools. Such a relatively minor phoniatric ailment if not properly managed at early childhood may result in certain pathological communicative behaviour that interferes with the career of bright young adults. Some patients have slipped in a systematic avoidance behaviour of the words containing the defective language sound.

An attempt to understand the aerodynamic patterns of certain Arabic phonemes was made. The behaviour of the velopharyngeal valve in production of these phonemes was observed. The study though limited, supported certain earlier notions concerning the type and site of constriction in the vocal tract in producing certain consonants. The study has also confirmed certain aspects of coarticulation (Kotby 1978 and 1979).

The majority of the patient population consulting the phoniatric unit in Ain Shams University Hospitals were children with delayed language development. Retrospective analysis of the material showed that the treating team was categorizing many children as belonging to the diagnostic group referred to as idiopathic. Analysis of the material in the light of newly established psychometric evaluation of the child's aptitudes and in the light of better neurological investigations showed that many of the children falling in the idiopathic group could be isolated as a rather well defined group referred to as minimal brain damage. This analysis (Kotby and Wafy, 1979) helped drawing a better strategy of diagnosis and intervention in the big group of delayed language development. This study also focused attention on the importance of multidisciplinary teams in helping such children with delayed language development especially the brain damaged motorly handicapped child (Cerebral palsy) for whose rehabilitation a specialized multidisciplinary clinic attached to the Unit of phoniatrics was established. The proper evaluation of patients with dysphasia necessitated development of a test to measure the linguistic competence of the subject and the degree of language deterioration. A test adapted to Arabic language and culture was developed essentially as a screening test with the aim of differentiating symbolic language ailments from other communicative disorders. It also helps demonstrating the pattern of language disruption according to modality. The test helps the clinician to distinguish the dysphasic patients who are severely affected, specially on the perception level, who will not benefit from structural therapy (Fadly, Kotby and Ambar, 1976). The development of the test is in progress. It is meant to allow better scoring to help objectively in the evaluation of the effect of language therapy in dysphasia.

In association with the audiologist, psychologist and the teacher of special education the phoniatrician - logopedist group helps easing the communicative problem of the hearing impaired child specially at the pre-school phase of the rehabilitation programme. Though sound amplification and auditory training are essential in the rehabilitation programme, the development of a system for manual sign language and a system for Arabic finger alphabet was needed as an adjuvant rehabilitation policy. The project is in progress.

Apart from the aforementioned and applied clinical research the Unit of phoniatrics undertook the responsibility of spreading knowledge concerning phoniatrics in order to establish the new speciality in Egypt. Several introductory articles were published to focus light on various aspects of phoniatrics (Kotby 1973a, 1973b, 1976b). These articles helped informing the medical profession

concerning the scope of phoniatics as a speciality in clinical medical practice. Since a great number of the patient clientele of the Unit of Phoniatics are children, a seminar was arranged in collaboration with the Department of Paediatrics to study the communicative problems of children (Kotby, 1978).

It was natural that this newly established Unit will undertake the task of spreading knowledge concerning phoniatics not only in Egypt but also in the Arabic speaking world. Phoniatic services were first planned in association with the Iraqi authorities (Kotby, 1975). WHO supported this investigation. With the aim of stimulating phoniatic-logopedic education several binational and multinational seminars were arranged and sponsored by Ain-Shams University sometimes in collaboration with foreign organizations like DANIDA of Denmark. Eminent teachers and scientists in the field of phoniatics and logopedics were invited to discuss either general or specific topics in these seminars. Participants from Sweden, Denmark, Holland and Finland were instructors in these seminars in the period 1975 to 1979. It is planned that these seminars will continue as an important tool of spreading knowledge in the field of phoniatics. Members of the medical profession from neighbouring Arab and Middle Eastern countries were invited as candidates in these seminars whose duration varied from 2 weeks to 3 months.

It remained that spreading knowledge in phoniatics relied mainly on formal educational programmes that will qualify specialists in the dual fields of phoniatics and logopedics. The newly established Unit applied for a course in basic education in logopedics which is given in 12 months to students who have a B. A. in English literature or psychology. The students are offered a clinical competence certificate at the end of this course. The Unit is giving the fourth course in this series 1978-1979. A master degree of medical science in phoniatics was established for postgraduate education in phoniatics (Fadly and Kotby, 1978). The graduates represent the first generation of all „made in Egypt“ phoniaticians.

Candidates from Iraq and Sudan are studying in this degree to get a speciality in phoniatics to establish the profession in their home lands. In order to complete the battery of high level post graduate education application for a Master degree in medical sciences in logopedics and a Doctor degree in Phoniatics is made and its implementation is on the way. International contact is specially intensified at these years of infancy of Egyptian Phoniatics. The new generation of phoniaticians and logopedists are offered fellowships to visit some leading centers in the world. A special relation is found at present between Egyptian and Deno-Swedish phoniatics.

The members of the profession are encouraged to participate in the activities of international regional and national congresses in order to get acquainted with most recent trends in the profession. They also present their research works and enjoy getting critical feedback essential for adjustment of the scientific programme and methodology.

A national society, the Egyptian Society for Phoniatics and Logopedics, was founded in 1977. Among its objectives is the encouragement of scientific research. The society lays the foundation of professional ethics and discipline. The society has applied and has been accepted as an affiliated society to IALP in 1977.

Further plans for scientific development of phoniatics in Egypt stresses on the undertaking of more sophisticated research works inside and outside the frame of the doctoral education programmes. The future plans include also the establishment of new comprehensive Units of phoniatics in other Egyptian and Arab Universities. It is aimed in the near future to achieve better organization of the profession and closer cooperation between the profession and related medical, paramedical and non-medical disciplines. Through the fulfilment of these objectives better clinical services to broad sector of the population is hoped for.

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### *Addendum*

#### *AIN SHAMS UNIVERSITY HOSPITALS UNIT OF PHONIATRICS*

Taken from information brochure (not complete) by Koradie Advertising & Production

Communicative problems and rehabilitation were known to and were practiced by the ancient Egyptians. The description of a state of "speechlessness" after head trauma in case 19 of the Edwin Smith papyrus is the oldest reference to dysphasia. Several documents in the art treasures of Ancient Egypt shows beyond doubt the rehabilitation efforts and the care of the disabled ca 5 millennia ago.

In the early centuries of our millennium, Cairo witnessed advanced health care. Several leading publications in medicine including reference to communicative disorders and its management are available to day from the 12th to 15th centuries. There are several eyewitness descriptions of the very advanced hospital systems in Cairo at those days.

Despite this glorious heritage in the field of Communicative Disorders the 20th century began with very little done for the communicatively disabled. The earliest services were given through the work of a newly established Dept. of Special Education in the Ministry of Education in the early 30's of this century. A speech clinic was established in the late 30's in association with the teacher's high school to provide services for pupils with speech, articulation and stuttering problems.

The real effort to deliver organized services in the field of Communicative disorders started with the establishment of the Units of Audiology in the Fall of 1973 and the Unit of Phoniatics and Logopedics in Jan. 1974 in the Department of ORL, Faculty of Medicine, Ain Shams University.

The Unit of Phoniatics and Logopedics, Ain Shams University has been established January 1974 as a Unit in the Department of Otolaryngology. The speciality of Phoniatics and Logopedics developed to be an independent speciality, Phoniatics and the medical speciality in communicative disorders (i.e. diseases of voice, speech and language) and Logopedics as the nonmedical speciality, both complementing each other.

During the last ca. 25 years, the Unit of Phoniatics and Logopedics has more than tripled its facility and its responsibilities.

1. Facility:

The surface area has reached ca. 950 sq.m. in 2 parts of the University Hospitals.

2. Personnel:

The personnel of the Unit include:

24 Phoniaticians (4 Professors, 4 Assistant Professors, 5 Lecturers, 8 Assistant Residents), 17 Logopedists, 6 Clinical Psychologists, 3 Physiotherapists, 1 Therapeutic Material Designer, 4 Nursing Staff, 12 Secretarial, administrative staff and 1 Public Relation Officer.

3. Clinical Services:

The services given by the Unit include:

In 1990 the Unit served in the domain of voice, speech and Language:

2441 New Cases

1000 Follow up Cases

13238 Therapy Sessions

1147 Formal Testing Sessions

1350 Physiotherapy Sessions

In 1998

3660 New Cases

1530 Follow up Cases

19420 Therapy Sessions

2390 Formal Testing Sessions

2890 Physiotherapy Sessions

4. Educational programs including:

Master Degree and Doctoral Degree in Phoniatics (M.D.) Diploma (C.C.C.) (post graduate) in Logopedics (non medical). The number of graduates during the last 14 years is:

a) Phoniaticians:

a. Doctoral 16

b. Preparing Doctoral 10

Total 26

c. Master 44

d. Preparing Master 14

Total 58

b) Logopedics:

a. Clinical Competence

Certificate (C.C.C.) 150

b. Preparing 7

Total 157

In this respect it should be pointed out that the Ain Shams University, Phoniatic Center is the only comprehensive teaching training center for the Middle East and the Arabic speaking countries.

5. Graduates and Spread out of the Speciality:

The graduates of the Ain Shams Center are manning the Ain Shams University Center and have started services in other centers in:

Egypt:  
Cairo University  
Alexandria University  
Assyout University  
Mansoura University  
Menia University  
Sohag University  
Tanta University -  
Monofia University  
Ministry of public Health Hospitals (in Cairo)  
Armed Forces Medical Services

Sudan:  
Khartoum General Hospital

Iraq:  
Medical City University Hospital (Bagdad)

Jordan:  
Amman, Queen Alia Center and the Center for Phonetic Research

Saudi Arabia:  
Mecca General Hospital  
Riyadh Center for the Handicapped  
Jeddah  
King Abdel Aziz Univ. Hospital, Riyadh

Kuwait:  
Sabah Center for Communicative Disorders

Dubai:  
Dubai General Hospital

Turkey:  
Harran Universities Arastima-Hastanesi, Sanliurfa.

#### 6. Research activities

- a) Field and clinical studies that help to supply basic information for the developing clinical and educational services including the identification of the developmental scales of Egyptian children and the epidemiological distribution of communicative disorders in the various environments of Egypt.
- b) Experimental research programs in the field of voice physiology, pathology, diagnostics and voice therapy as well as language problems in adults (dysphasia) and children (delayed language development) specially due to brain damage, Down syndrome, motor handicap and hearing impairment.
- c) Education Research programs to enhance the educational ability of the students.
- d) Research Programs directed at the Prevention of communicative disorders.

#### *Publications:*

The Unit has published about 154 scientific papers and author & co-author in 7 books.

### 7. Joint Research and Academic Channels

1. Western Michigan University, Kalamazou, Courtney Stromesta.
2. Yale University, New Haven, John Kirchner.
3. Memphis University, Memphis, Joel Kahane.
4. University of Wisconsin, Madison, Diane Bless.
5. University of Iowa, Iowa City, Ingo Titze.
6. North Western University, Evanstone, Jeri Logemann.
7. New Yourk Medical College, Valhalla, Ben Watson.

### 8. Advisory Consultation:

The Unit of Phoniatics offers advisory consultation to national and international bodies e.g. WHO, UNICEF, International Association of Logopedics and Phoniatics (IALP), Governments of Iraq, Sudan, Jordan, Kuwait, Tunisia and Saudi Arabia.

### *Professional state*

- . independent specialty of its own standing yes
- . official subspecialty to ENT yes
- . official subspecialty to others no
- . inofficial specialization as to Audiology as a specialization
- . number of university departments 11
- . number of doctors working in the field 86

### *education and training*

- . program and examination for specialization
- . Phoniatics Master degree and Doctoral degree
- . phoniatics in the frame of ENT, program Limited introductory
- . clinical anf theoretical courses

### *Research, main topics*

Persons 64

Topics

Voice, speech,

language, dysphagia

relevant web sites for links none Association

### *Scientific*

name: Egyptian Societ of Phoniatics and Logopedics

contact address:

Prof. Nasser M. Kotby, M.D.,

11, El Ansary Street,

Manshiat El Bakry, ET

11314 Cairo, Egypt

### *Literature*

essential publications

154 papers, 7 books

relevant web sites for links none