CLINICAL NOTES IN THE PARIS HOSPITALS.

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VI.

THE NECKER HOSPITAL.—CLINIQUE OF PROFESSOR GUYON.

The New Wards.—Laboratories.—Museums.—Electrical and Endoscopic Rooms.—Organisation of the Teaching Departments.—Professor Guyon's Views on Suprapubic Cystotomy.—Resection of the Urethra.—Antisepsy in Genito-urinary Surgery.

THE hospital service of Professor Guyon for the study and treatment of genito-urinary diseases has since 1890 been reconstructed on a very complete scale. It consists of a series of wards, laboratories, and museums, with an elaborately arranged system both for the purpose of treatment and of teaching, which well illustrates the remarkable completeness with which some of the French hospitals and teaching establishments are organised. It is, so far as I have seen, by far the most completely installed institution of the kind in Europe. The work was commenced in May, 1890, and in August of the same year the out-patient rooms and laboratories were already in work, and were inaugurated by Professor Guyon in November of that year. The plans were drawn by M. Guyon himself and his clinical and laboratory superintendents, and the architect was M. Blouet, architect to the Assistance Publique. The Assistance Publique supplied the site, and the Faculty of Medicine gave a subvention of about £320. The cost of installation has amounted to nearly £5,000, and this has been borne by Professor Guyon himself. It is at his expense also that the museum, library, and laboratories have been erected, the Faculty of Medicine giving only an annual vote of £120.

Professor Guyon's clinic at the Necker Hospital consists of two waiting rooms for men and women, the out-patient room, a library, a laboratory of histology and bacteriology, a laboratory of chemistry, and a museum. The library includes several sections—the section of classical works in medicine and surgery generally, the section of chemistry, the section of histological and bacteriological *technique*, and the section of genito-urinary diseases, which is naturally the most important. The last named section includes a large department of ancient and modern treatises, of theses and memoirs, and of all the periodical publications concerning the anatomy and pathology of the urinary apparatus. The library is open to the students every day. It contains also the ward registers, with reports of cases and operations and descriptions of the anatomical specimens which have been placed in the museum.

The laboratory of histology and bacteriology has a frontage entirely of plate-glass window looking towards the north, and opening on to the courtyard of the hospital; it contains two large tables in enamelled lava, with eight microscopes and places for eight pupils. They are supplied with water and gas and all the instruments and reagents necessary for histological and bacteriological work. In the centre of the laboratory is a table for experimental work, which is also in enamelled lava and lighted with gas. Side tables are supplied for the microtomes and for blowing glass. In the chimney hood, which is abundantly supplied with water and gas, are arranged all the apparatus for bacteriology, including a dry steriliser, Pasteur's heating oven, steam steriliser, autoclave, coagulator for serum, paraffin stove, three D'Arsonval's incubators, one of Roux's large incubators, an ice box, an apparatus for plate cultures, Chamberland pressure filter, and Pasteur's filter. The glass cases around the walls contain apparatus for inoculations and injections, a complete supply of glass apparatus graduated and sterilised, a reserve supply of the same, collections of pathological specimens preserved for histological examination, reagents, culture media and cultures, with instruments and various things belonging to the pupils, and five microtomes of different kinds. The histological and bacteriological preparations of the laboratory are classified in a series of 300 drawers arranged to contain 11,000 preparations. The lighting for microscopical work in the evening is furnished by portable gas lamps supplied with Auer's incandescent burners.

There is a room in the laboratory for six pupils, each pursuing separate researches in histology and bacteriology. The superintendent of the laboratory and his assistants are

charged with histo-bacteriological examinations of pathological urine, *post-mortem* examinations, and anatomico-pathological work. The superintendent of the laboratory teaches the pathological anatomy of the urinary apparatus and the histo-bacteriological examination of pathological urine, for which purpose he employs the collections belonging to the laboratory and the specimens in the museum. The laboratory of histology and bacteriology communicates with the chemical laboratory by a lavatory common to both. An annexe situated in the gardens of the hospital supplies the kennel and the cages for animals belonging to the laboratory, and a room for experiments on animals and for the preservation and preparation of anatomical specimens.

The chemical laboratory is situated in the principal courtyard of the hospital, and is 24 feet long and 12 wide. It is divided into two rooms, the smaller of which is provided with a complete apparatus for the necessary physiological analyses, while in the other are stored the instruments necessary for carrying on chemical researches and general chemistry. The laboratory is well lighted, and all the instruments are of the most modern construction. Since the opening of this laboratory about a year ago, various researches have been carried on by the superintendent of the laboratory, Dr. M. C. Chabrie, Doctor of Science, on the following subjects: 1. On a gaseous antiseptic and its action on the pyogenic bacterium of urinary infection (*Comptes Rendus de l'Académie des Sciences*, November 17th, 1890). 2. On a case of paroxysmal urobilinuria *a frigore* (*Annales des Maladies des Organes Génito-urinaires*, February, 1891). 3. Contributions to the study of the action of the kidneys in sufferers from urinary disease (*Annales des Maladies des Organes Génito-urinaires*, May, 1891). 4. On a new albuminoid substance of the serum of the blood in man (*Comptes Rendus de l'Académie des Sciences*, October 26th, 1891). 5. A contribution to the physico-chemical study of the function of the kidney (*Comptes Rendus de l'Académie des Sciences*, November 2nd, 1891).

The museum contains the anatomico-pathological collection of Professor Guyon, and includes 300 specimens illustrative of the pathological anatomy of the urinary organs, casts, drawings, etc., and a collection of the products of urinary chemistry.

The Teaching of M. Guyon is carried on every day at half-past nine, when he makes his visits to the wards, and when the examination of the patients and clinical teaching take place and ordinary operations (explorations, urethrotomies, etc.) are performed. On Wednesday, at 10 o'clock, a clinical lecture is given in the amphitheatre, followed by operations. The major operations, such as lithotomy, resection of the urethra, external urethrotomy, nephrotomy, nephrectomy, and nephrorrhaphy are usually reserved for Wednesdays. On Saturday, at 10 o'clock, out-patients are seen; new patients are seen and examined, after which ordinary operations, especially lithotrities, are performed. Every morning at half-past nine out-patients are treated (washing out, dilatation) by the pupils, under the direction of an *interne*. Among the subjects especially studied recently by M. Guyon may be enumerated: 1. Suprapubic cystotomy for the extirpation of neoplasms of the bladder, a proceeding which is currently employed in the service. M. Guyon rejects Trendelenburg's method of transverse incision, but employs the sloping position proposed by that surgeon, whose special bed he uses. 2. Resection of the urethra for the radical cure of obstinate stricture yields excellent results in M. Guyon's hands in cases of traumatic stricture. After excision of cicatricial tissue and reconstitution of the canal, either by suture of the two cut ends or by plastic operation, he obtains union by first intention, a supple perineum and a permeable canal. The advantages of this practice have been clearly established by cases operated on now a considerable time ago. These results have been brought together and published in an excellent thesis by M. Nogues, a former *interne* of M. Guyon's (1892). 3. Nephrorrhaphy, for which M. Guyon employs a special mode of suture, entirely avoiding cutting of the renal tissue by the threads. 4. Antisepsy in urinary surgery. To insure this he insists on (a) the sterilisation in a dry oven at a temperature of 180° C. of the metallic catheters and other instruments employed; (b) the sterilisation of the gum-elastic catheters, etc., which are daily kept for twelve

hours in an atmosphere of sulphurous acid gas under pressure, and every morning before the ward service begins they are immersed in a 1 in 1,000 solution of biniodide of mercury; (c) by the employment of a 1 per cent. solution of nitrate of silver, for operative antiseptic of the urethra and bladder, such as urethrectomy and lithotripsy. This practice necessitates the employment of silver-plated instruments and of antiseptic syringes made of glass and silver. 5. Much attention is given to the therapeutic action of sublimate in cases of refractory cystitis, and particularly tuberculous cystitis. M. Guyon employs 10 to 15 drops of a watery solution of nitrate of silver without alcohol, varying in strength from 1 per 5,000 to 1 per 10,000. He has developed his views and results in the *Annales des Maladies des Voies Urinaires*, January, 1892. The principal scientific works published by Professor Guyon of late years have been: *Etude sur la lymphe de Koch dans la tuberculose urinaire* (Guyon et Albarran, *Annales Gen. M.*); *Physiologie pathologique de la rétention d'urine* (Guyon et Alb., *Arch. de méd. experim.*, 1890); *Etudes sur la rétention rénale* (Guyon et Albarran, *Annales Voies Urinaires*) (Acad. des Sciences).

In addition to these should be mentioned, as illustrating the scientific activity of the place, the recent publications of his *chef de clinique* M. Albarran: *Réunion primitive de la vessie dans la taille pour néoplasme* (*An. Voies Urinaires*); *Cathétérisme permanent des urètres* (Albarran et Lliura, *Soc. Biol.*, 1891); *Nouvel uréthrotomie d'arrière en avant* (*An. Voies Urinaires*); *De l'asepsie dans le cathétérisme* (*An. Voies Urinaires*); *Tuberculose rénale ascendante expérimentale* (*Soc. Biol.*); *De l'emploi de la sonde de Pezzer dans la taille après suture totale, et dans les cystites douloureuses* (*An. Voies Urinaires*); *Traité des tumeurs de la vessie* par Albarran, 1 vol, 800 pages, Steinheil, 1892.

A series of theses have recently been published by the pupils of the Necker under the inspiration of Professor Guyon, to which it may be useful to give references¹ as illustrating the outcome of the study of disease in this department.

Complementary Courses.—A view of the teaching at the Necker would be quite incomplete which did not give an account of the complementary courses of instruction carried on by the *chef de clinique* and the superintendent of the laboratories. This teaching, which is given in the afternoon, includes four courses: one of clinical and operative surgery, by Dr. Albarran, the *chef de clinique*; a course of anatomical pathology, by Dr. Noel Hallé, superintendent of the histological and bacteriological laboratory; with a course of practical urinary chemistry, by Dr. Chabrière, the superintendent of the chemical laboratory; and a course of endoscopy and practical treatment, by Dr. Janet, who is charged with the endoscopic service of the wards.

These courses are given contemporaneously, and are completed in two months. They are repeated several times a year, according to circumstances. Dr. Albarran's course is given in the out-patient department, and it includes the symptomatology of affections of the urinary apparatus; the examination of patients illustrating diagnosis; their treatment exemplified by ordinary operations on the patient, and the major operations studied on the dead body.

Dr. Hallé's course includes the anatomo-pathological description of the lesions of the urinary apparatus; and the histological and bacteriological study of morbid urine. Each lecture is followed by practical microscopic work; the examination of pathological urine; the examination of the pathological specimens in the museum and preparations in the laboratory collections. Dr. Chabrière's course includes the chemical examination of normal and pathological urine, analyses and quantitative estimations, and a special study of chemical procedure. Dr. Janet's course of endoscopy and practical treatment includes a detailed study of the principal urethral and vesical endoscopes, and their applica-

tion to the diagnosis and treatment of all the affections of the urethra and the bladder.

Electrical and Endoscopic Departments.—To the out-patient department there are annexed: first, an electrotherapeutic service, under the charge of Dr. Danion, in which there is a specially-devised bed and apparatus for electrification by continued and interrupted currents; here is carried on the treatment of some of the nervous affections of the bladder, and incontinence of urine. Secondly, a very interesting and complete service for urethral and vesical endoscopy, is presided over by Dr. Janet, formerly house-surgeon. The apparatus here is very complete. It includes a bed with movable back pieces, for the examination of patients in the recumbent and sitting positions, and surrounded with curtains so as to make a dark room. It is provided with a large Leclanché battery of sixteen elements with a collector. The endoscopic instruments in use include, for the purpose of the urethroscope, the photophores of Clar, of Stein, and of Casper; the endoscopic tubes of Grünfeld, and the whole collection of Grünfeld's endoscopic instruments, forceps, scissors, bistouries, stilette, galvanocautery, etc. Among the apparatus in use are the cystoscopes of Nitze and Leiter, the fenestrated endoscope of Grünfeld, and a double endoscope devised by Dr. Janet. Endoscopic treatment is carried on every day for localised lesions, ulcerations, fissures, granulations, and polypi. The treatment is only employed in the case of patients suffering from chronic sequelæ incurable by the ordinary topical methods. Cystoscopic examinations are chiefly employed in the case of bladder lesions, such as tumours, and the verification of the condition after lithotripsy and the recognition of renal hæmaturia with examination of the orifices of the ureters. The students are trained every morning in the use of the endoscopic instruments and in the methods of diagnosis and treatment by the aid of the endoscope.

In the laboratory of histology and bacteriology the superintendent has several assistants who give instruction in the histological and bacteriological examination of the urine, the search for pus, epithelial elements, blood, fragments of tumours, casts, micro-organisms, etc. The assistants also make necropsies and histological examinations. The studies of histology and bacteriology and of experiments on animals are pursued in the laboratory under the direction of the principal.

I note below some of the principal works published during the last two years in the laboratory, as the best test of the value of such instruction, and the special studies issuing from them.²

The Museum.—M. Guyon's collection, which is kept up by Dr. Hallé, was begun in 1862, and contains now 300 specimens of lesions of the urinary apparatus. They are preserved in arsenical fluid in glass jars closed with glass plates luted with vaseline, and having over this an indiarubber covering, so that the specimen can at any time be taken out for examination. They are constantly used for pathological demonstrations. They are labelled and classified, and the catalogue of cards, arranged as for a book library, gives a summary of the anatomo-pathological description of each specimen. The registers contain the clinical and necroscopic observations *in extenso*. In addition to this are the series of casts and drawings already referred to.

¹ Contribution à l'anatomie pathologique des rétrécissements de l'urètre, par MM. Melville, Wassermann, et N. Hallé. Les micro-organismes de l'urètre par MM. Petit et Wassermann. Recherches sur le pouvoir antiseptique du sublimé et du nitrate d'argent, par N. Hallé. De l'infection urinaire, par N. Hallé (*Annales Voies Urin.*, février, 92). Contribution à l'étude de la pathologie du muscle vésical, par Bohdanowicz (Thèse, Paris, 1892). Etude bactériologique des cystites chez la femme, Dr. Reblaud (Thèse, Paris, 1892).

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries and the colonies who have recently died are Dr. Hutin, Médecin Inspecteur of the French Army, and formerly member of the Military Sanitary Council, aged 87; Dr. J. Kallivoda von Falkenstein, of Agram, President of the Croat and Slavonic Medical Association, aged 72; and Dr. James Bowie, who graduated at Glasgow in 1825, and practised in Canada for more than sixty years, aged 90.

² Albarran: Le rein des urinaires; Thèse, 1889. Albarran et Hallé: Note sur une bactérie pyogène et l'infection urinaire; Acad. Médecine, 1888. Bureau: Traitement chirurgical des pyonéphroses, 1890. Vignard: Prostatectomie; Thèse, 1890. Janet: Troubles psychopathiques de la miction; Thèse, 1890. Récarnier: Anatomie chirurgicale du rein; 1889. Legueu: Calculs du rein; Thèse, 1891. Legueu: Anatomie chirurgicale du bassin; *Annales d'urin.*, 1891. Legueu: Névralgies rénales (*ibid.*). Chevalier: Intervention dans les tumeurs malignes du rein; Thèse, 1891. Arnould: De l'Hydronephrose; Thèse, 1891. Nogues: Resection de l'urètre; Thèse, 1892. Vignerou: Traitement chirurgical de la tuberculose rénale; Thèse, 1892. Reblaud: Etude bactériologique des cystites chez la femme; 1892.