

there are the numerous localised fibroid and deeply pigmented bands of tissue seen in the lungs of old people, or people who have died during middle life, sometimes without caseous or calcareous nodules in the centre, but perhaps more frequently with one or other of these marking the centre of the cicatrix, the puckered pleura near the apex of the lung also marking a considerable loss of substance at some period during life. In children this is not found in nearly such a large proportion of cases, but well-marked examples may be met with even in very early life, and pretty frequently before the eighth year.

This is so far encouraging, and entitles us to hope that, as more facts concerning the life history of the bacillus tuberculosis and the conditions under which it may flourish in the body are gathered, the death-rate from tuberculosis may be materially diminished. Milk, air, and food can one and all convey the bacillus from cattle or swine to patient, or from patient to patient; and if the bacillus or the disease can be successfully attacked in any one of these, a possible source of infection to others is done away with. From clinical experience it must now be concluded that the general health of the patient has in all cases much to do with the resisting powers of the tissues, so it is imperative on every medical man to try to improve the general health of those of his patients having a tendency to scrofula or a tubercular family history. Children of low vitality are scrofulous because the introduction of a comparatively small number of bacilli brings about complete degeneration of the lymphatic glands, and there are no giant cells and few bacilli found in a scrofulous gland, not because of any change in the nature of the bacilli, but because of the difference (non-resistance) of the tissues in which they grow. The number of bacilli attacking a healthy gland would be rapidly disposed of; but in the delicate child, with its weakly tissues and imperfect nutritive and excretory power, the gland tissue gives way on the slightest stimulation, and the cold abscess is the result. The lecturer was convinced from the experiments he had performed that this was the case. Bacilli differ in number, but not in character; and if once a cultivation can be obtained from a cold abscess (a somewhat difficult matter), well-marked tuberculosis may be produced by it by inoculation.

The question of the structure and importance of giant cells was then touched on. Each authority, it was pointed out, had his own theory about the nature of these structures. It was now becoming evident that each of many of these observers, though describing different conditions, might still claim right on his side. Those who advocated that the giant cell was a lymph space with proliferating endothelial cells around are apparently justified. Then, again, Weigert has proved that a giant cell is nothing more in some cases than a collection of cells in which bacilli are causing proliferation at the margin, fusion and degeneration in the centre, a mass of caseous material in the centre and proliferating cells with bacilli between them at the periphery resulting. Klein saw the giant cells being formed by the fusion of epithelial cells of the air vesicles. Small bloodvessels in transverse section have, like the lymphatics, been described as giving rise to giant cells. Dr. Barrett finds them in the seminiferous tubules in tubercle of the testicle, and the lecturer had seen them developed in connexion with minute bile ducts in the liver, and in the milk ducts and acini in the mammary gland of the cow. In all cases the process Weigert describes occurs, but at different rates and with slightly varying results. The presence of these giant cells affords evidence that the cells are making a determined resistance against the advances of the bacilli, are giving way slowly, and so limiting the area of caseation. In many cases where the giant cells with their rings of nuclei are best marked, very few bacilli are to be found, as they have been destroyed by the phagocytes at the margin—i.e., the active cells with deeply stained nuclei. In other cases, however, the bacilli have taken the place of the nuclei at the margin of the giant cell, the boundary line in such cases being determined for a time by the basement membrane of the tube in which the mass is formed.

**PRESENTATION.**—Dr. Philip Addis of Iver has been presented with a testimonial by his friends and others, as a token of respect and gratitude for his fourteen years' gratuitous services to the Iver, Langley, and Denham Cottage Hospital, with a handsome silver tea set, a silver salver, and the sum of £93, which was left after the purchase of the above articles.

## ABSTRACT OF A

## Post-Graduate Lecture

ON THE

PATHOLOGY AND TREATMENT OF  
THE ENLARGED PROSTATE.

BY REGINALD HARRISON, F.R.C.S.,

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GENTLEMEN,—In bringing this subject before you, I would ask you to observe that I purposely avoid speaking of the prostate as a gland, as I consider such a term inappropriate to a part where, so far as function is concerned, the secreting element is subservient to the muscular. As I have recently discussed this subject at considerable length in my Lettsomian Lectures, I shall confine myself as closely as possible to those points in pathology which it is necessary to make prominent for clinical purposes. If we sum up our experience as practitioners relative to enlargement of the prostate as observed in advancing years, I do not think we shall find much difficulty in recognising that this physical change exists under two conditions which are sufficiently well marked. Whatever may be the proportion of males over sixty years of age who experience some degree of enlargement of the prostate, the evidence appears tolerably conclusive that it is only the minority of this number who develop symptoms which can be regarded as evidence of disease. Hence we may divide persons who have large prostates into two classes: (1) those who do not suffer from them, and (2) those who do.

Taking the former first, I have for a number of years carefully watched persons who had large prostates, but were not aware of it themselves from any circumstances which might tend to suggest it. In many instances the discovery was made, as it were, quite accidentally. In addition to evidence of this kind, I have met with numerous instances where post-mortem examination revealed the presence of a considerable prostate, though no symptoms previously existed. Facts such as these seemed to suggest that the enlarged prostate had come in for much uncalled-for abuse, and that, like other hypertrophies in the body, it might be serving a useful but hitherto unrecognised purpose. Passing to the second class of cases, it was equally evident that there existed a considerable proportion of instances of prostatic enlargement which were attended with most distressing symptoms of vesical obstruction and irritation. The contrast between these two classes of cases, which did not appear to be necessarily transitional, was so marked as to almost suggest in itself some physical alteration in the part to account for the difference. Without going further into detail, my examinations during life and after death led me to the conclusion that so long as the prostate retained its natural structure, it did not seem to matter much, so far as its function was concerned, what size it attained. On the other hand, when it underwent degenerative changes which reduced it to little else than a mass of fibrous tissue in the form of lobulated, nipple-like, or interstitial tumours, it was pretty certain to excite varying degrees of irritation.

The next points that naturally arise are: First, how is it in some instances that the prostate, though increased in bulk, still remains throughout life histologically and functionally normal? And, secondly, under what circumstances does it pass into the condition of a fibroma, and produce symptoms of obstruction and cystitis?

In reference to the first point, I would remark that the human body furnishes us with undoubted instances of hypertrophies, proving themselves to be not only necessary, but precisely compensatory relative to what is required. If, as I have urged, the chief function of the prostate consists in providing a retentive as well as a supporting apparatus for the contents of the bladder, there is no reason, when the time comes for substituting quantity for quality, why the provision should not prove to be permanently compensatory. The conditions under which muscular hypertrophy exists, as

observed about the neck of the male bladder, seem to indicate that, should circumstances arise to render the necessity for such increase inoperative, the structural excess then undergoes degenerative changes, and assumes properties in accordance with that type of tissue with which it has thus become assimilated. And it appears to me that in the study of hypertrophies there yet remains some interesting work to be done in connexion with those transitional changes which depend upon the suspension of, or alteration in, the conditions which in the first instance rendered the overgrowth a necessity.

We have seen that the large prostate is able to perform its function just as perfectly as the smaller one of earlier life. Taking, however, those instances where such is not the case, and where the large prostate proves to be a serious detriment to the individual, it seems to me that in the greater proportion the development of symptoms are about coincident with that physical change in the shape of the bladder which we know by the name of "pouching," where a depression is formed above the prostate in which urine may lodge. It has been generally taught that this pouching of the bladder is a direct consequence of enlargement of the prostate, the supposition being that as the latter grows towards the bladder cavity, where there is the least resistance, a depression is left above the growth. Now, though this may in some degree be true, it does not represent what commonly occurs. My observations lead me to believe that this pouching, or space for residual urine, is caused by the sinking of the bladder wall itself away from the prostate as the result of urine pressure on the part, and not in the first instance by the encroachment of the prostate upon the interior of the viscus. It is quite easy to demonstrate this upon the dead subject. When this occurs with a large prostate which hitherto has been performing its functions in a natural manner, the immediate effect is to cause a prominence which previously had no existence. Following upon this we have the conversion of the prominent prostatic mass into a fibroma, with the gradual acquisition of those properties which such a structure possesses. In the bladder we see this taking the form of fibrous masses, which cause obstruction and excite mucous exudation and cystitis. To attribute the latter symptoms to the mere presence of a few ounces of urine in the bladder, which cannot be spontaneously voided, is certainly not warrantable. Passing to points in practice, it is evident that if a person has a large prostate, however well it may be working, it behoves him to be careful that the bladder is not submitted to such a kind of usage as either may gradually or suddenly alter its relations to the outlet. All those circumstances which by their degree or continuance throw an undue strain upon the bladder at a time of life when the tissues begin to lose somewhat their power of resistance should be studied with the view of avoiding them. In the next place, when these strains do come by the wear and tear and accidents of living, we should be prompt in recognising them and giving the necessary assistance, either mechanically or by medicines, as the case may be, to prevent permanent damage being done.

I would say a few words, in conclusion, as to the treatment of prostatic hypertrophy when the part has to a large extent assumed the structure and properties of a fibroma. The degree of vesical irritation and obstruction under these circumstances is sometimes very intense, and various means have been proposed to deal with this condition by operative procedures, having for their object either the section of the obstructing part with provision for the more perfect drainage of the bladder by artificial means, or the removal of more or less of the prostatic mass. In both of these directions considerable relief has been afforded. Having regard to the fibroid condition the part assumes, I have thought, if there is any truth in Apostoli's treatment, that it is possible it might under these circumstances prove serviceable. I have now this subject under consideration, but at present I have not sufficient material for our purpose of to-day. I am aware that electrolysis has been practised both in this country and in America, but I cannot say that as yet we have sufficient evidence to warrant its more general adoption. I would lay stress on the examination of the prostate from the rectum as determining our views in reference to the patient's future when retention of urine is due to this cause. When this happens in a person with a hard nodulated prostate, where there is evidence to the touch that fibrous tissue predominates largely over the muscular, the power of the bladder

seldom returns, and the use of the catheter is generally perpetual; and when, on the other hand, the prostate is found soft and yielding to the touch, indicating that muscle still prevails, we may as a rule anticipate complete restoration of function. I attach importance to this distinction, as in most cases of acute retention due to prostatic enlargement it enables us to form reliable opinions relative to the probable duration of catheterism.

#### SOME REMARKS ON THE USE OF ELECTRICITY IN GYNÆCOLOGY.

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THE use of electricity in gynæcology has of late been much discussed, perhaps more so than any recently suggested practice. Somehow or other Dr. Apostoli's enthusiastic advocacy of it has succeeded, as enthusiasm always does, in arousing the interest of the profession, and the somewhat heated controversies which the subject has given rise to have not lessened the attention which has been paid to it. A practice which has received the adhesion of men like Keith and Spencer Wells, and which has induced an operator of the almost phenomenal success of the former to declare publicly that he should consider it to be almost a criminal offence to remove the ovaries or perform hysterectomy for a bleeding fibroid before the hæmostatic effect of electricity had been fairly tried, can hardly be the senseless and certainly useless procedure which some of its opponents would have us believe. Within the past few weeks the matter has come up for discussion twice at public meetings—once at Brighton, and once at the Obstetrical Society. I have attended both these meetings, and I have been struck with the curious fact that while everyone who has fairly, patiently, and impartially tried this method of treatment has been able to say that he believes it has at least some power for good in it, and is well worthy of further study, not one single opponent—and its opponents are both numerous and influential—seems to have taken the trouble to put it to the test of clinical experience, but has founded his objections on mere theory, and on secondhand evidence as to its possible dangers. Now we all know what theoretical objections are worth in any advance in medicine or surgery. Is it not the fact, as I ventured to point out at the discussion at the Obstetrical Society, that if mere theory could prove anything it would have proved to demonstration long ago, and on grounds far stronger than any which have been adduced in opposition to this treatment, that every form of abdominal section was absolutely impracticable, and that those who ventured to perform it were as foolish and foolhardy as they would now have us believe are those who are endeavouring to test the merits of this method? Dogmatic assertion, however, impressive though it may be, is not argument. What we want are facts, not theories. If those who have fairly tried this method, with no preconceived intention to discredit it, can show that it is useless, the sooner they do so the better; but what I venture to insist on is the absolute necessity of carefully observed and impartially recorded cases.

My own position in this matter is that for the best part of a year I have been putting it to the test of clinical experience, both in hospital and private practice. I had no bias in favour of it, and, like others, I discounted Apostoli's assertions on account of his obvious enthusiasm; but I took a good deal of pains to learn the technique of a very troublesome practice, and to see what effects it was really capable of producing. I have been careful not to make the mistake of using it indiscriminately, but only in cases for which it seemed well suited. I have therefore not tried it in nearly as many cases as I might have done, but all in which I have were such as Apostoli specially claims as being well adapted for it, and proper for judging its value. I quite agree with what was said at the Obstetrical Society as to the time not having come for deciding this question. I have neither yet made up my mind as to its sphere of utility, nor satisfied myself why it sometimes succeeds so well as it certainly does, nor why it sometimes fails, nor how