CONCLUSIONS.

1. Elicitation of the aortic reflexes aid the diagnosis of aortic aneurysm.
2. Elicitation of the aortic reflex of contraction results in the symptomatic cure of aortic aneurysms, and the results are so astonishingly rapid that one is warranted in concluding that the method is practically a specific.
3. If results are not achieved, there is either an error in diagnosis or the aneurysm is beyond restitution.
4. By aid of skiascopy, skiagraphy, percussion, and auscultation one may determine objectively the improvement of the patient, although the reduction in the area of the aneurysmal tumour is not in proportion to the amelioration of the subjective symptoms.
5. It is reasonable to assume that like results may be achieved in aneurysms of other vessels, inasmuch as plethysmography, sphygmography, and other observations by the author show that all the arteries of the body are brought to contraction by definite stimuli applied to the seventh cervical spine.

REFERENCES.

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HYPERTROPHIED PAPILLAE OF MORGAGNI CAUSING RECTAL SYMPTOMS.

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THE papillae of Morgagni are situated at the ano-rectal junction, and though absent in the majority, are yet present in a considerable proportion of individuals. They are normally small white glistening papillae, pyramidal or triangular, with the apices directed upwards and inwards towards the lumen of the gut. In number they vary from one to six, and are situated either at the upper extremities of the columns of Morgagni or on the edges of the valves intervening between the upper ends of these columns. Their length varies from $\frac{1}{8}$ in. to $\frac{1}{4}$ in.

Stroud¹ describes them as consisting of myelinated and non-myelinated nerve fibres, with a considerable number of ganglion cells and very little connective tissue. They are covered by a stratified epithelium.

When hypertrophied, the papillae much resemble in shape and size the writing end of an ordinary lead pencil. They must be distinguished from the small fibrous polyp which sometimes forms on the top of an internal haemorrhoid.

Stroud has shown that these papillae are peculiar to man, occurring at all periods of life, having been seen in the fetus, and in patients of advanced years. They are not found in the lower animals, though search has been made for them. They are considered to be accessory sense organs, aiding and warning the anal sphincters. When these functions become unduly developed and the papillae are hyperaesthetic, they give rise to symptoms. Andrews² speaks of them as "special sense organs of the rectum," and mentions their removal as one of the causes of incontinence which sometimes occurs subsequent to Whitehead's operation for haemorrhoids.

While realizing that the out-patient department of a rectal hospital is not the place to investigate the normal rectum, I have examined fifty patients with the speculum, as far as possible in consecutive order. In this series papillae were present in nineteen instances, or 38 per cent. of the cases. The age of the patients examined ranged from 12 to 68 years with an average of 39 years, and the average age of those in whom papillae were present was 38 years. The number of papillae varied from one to six with an average of two.

The symptoms attributable to the hypertrophied papillae are as follows:

1. Irritation.

This is by far the most frequent cause of complaint, and in a large percentage of patients suffering from pruritus

and these hypertrophied papillae greatly augment the trouble, if indeed they are not the sole cause. This is demonstrated by the beneficial effect of cauterization or removal, as in practically all cases the patients are greatly relieved and many cured. In a series of 53 patients suffering from pruritus and attending the out-patient department of St. Mark's during the six months June to November, 1910, hypertrophied papillae were present in 13 cases—that is, in 25.6 per cent.

The papillae were cauterized more or less thoroughly in all these cases, and in only one was there lack of improvement. The majority of cases made two subsequent attendances, reporting great relief, and then ceased to attend. One case of a Jewess was particularly marked. She had irritation of eight months' duration; she had the typical hard plicated skin surrounding the anus common in people who suffer from irritation. Two papillae were cauterized, and from that time the irritation ceased, and a month later she had suffered no return, and discharged herself cured. It has yet to be proved whether this benefit is to be permanent.

2. Pain.

During the same six months I have collected 12 cases in which the complaint was of (a) pain in the lower part of the back, aching in character; (b) shooting pain in the rectum; (c) intense pain when the bowels acted, differing from that produced by fissure or fistula in that, instead of a sharp burning or stabbing pain of considerable duration, it is a sensation of sharp pricking which soon passes off. Careful examination in all these cases revealed nothing except hypertrophied papillae.

In every case cauterization afforded relief. Of the three types of pain mentioned, the shooting pain in the rectum, extending up to the base of the spine, is the most usual, while the dull aching pain and that present when the bowels act seem to be about equal in frequency.

3. Sensation of Mass in the Rectum.

This is a very common symptom, and, as a rule, the patient says that he feels as though the bowel protrudes on defaecation, but that nothing actually emerges. In these cases, again, the symptoms disappear on cauterization of the papillae. In all these 12 cases the patients complained of pain of one of the three types above mentioned, and also of the sensation of a lump in the rectum.

When much hypertrophied the papillae can be readily recognized by digital examination as small, shotty nodules. They can always be seen at the ano-rectal junction by means of a speculum.

Treatment.

Cauterization is undoubtedly the simplest, quickest, and most effective method of destroying the papillae; other methods I have tried, such as snipping off with scissors and destruction with nitric acid and other caustics, have no advantages, and are not so complete. The pain attendant upon cauterization is slight, and may be abolished by insufflating some analgesic powder through a speculum and allowing it to remain in the rectum for ten or fifteen minutes, after which cauterization is absolutely painless. The method used at St. Mark's Hospital is to pass a Kelly's speculum into the rectum and then withdraw it until the papillae stand up at the inner end, when they can be successively touched with the electric thermocautery. One application is generally sufficient, but in three cases I have recatherized two weeks later.

It is remarkable that none of the works on rectal surgery gives any attention to the symptoms caused by these papillae. They were mentioned as a separate disease in the annual report of St. Mark's Hospital for the first time in 1908, when eleven cases were treated as in-patients.

In one book of rectal surgery³ only are they mentioned, near the end of a long list of causes of pruritus, but I have been unable to find any mention of them in connexion with other symptoms.

I am much indebted to Messrs. Mummery, Baldwin, and Gordon Watson, the surgeons in charge of the out-patients, for their kindness in allowing me to use their cases, and particularly to Mr. Gordon Watson for his suggestion that I should collect these cases, and for the assistance he has given in these investigations.

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