3. I saw my third case in consultation with Dr. George Dickson, of Ardmillan Terrace, Edinburgh, on February 10th. Dr. Dickson had not been engaged to attend this patient, a 1-paria of about 24 years of age, but had been suddenly sent for as convulsions had supervened. She was six and a-half months advanced in pregnancy, and had had five fits in rapid succession before I saw her. There was much albumen in the urine, and the cervix was very rigid, the os being barely an inch in diameter. I dilated with the Bossi dilator in thirty-five minutes to a little over 3 in. diameter. As it was a premature labour I did not try to obtain full dilatation. In about half an hour afterwards the fetus was delivered with forceps; it was not viable. The mother has thus far (February 18th) made an uninterrupted recovery.

In none of these three cases had I any opportunity of dealing with the condition by prophylaxis, as all the patients were in labour when I was summoned; in all of them morphine was given, but only to a small extent in the first and third ($\frac{1}{4}$ gr.), and in one of them (the first) the saline infusion was injected below both breasts.

I have dealt with many cases of eclampsia since I published my first cases in 1884, and I think that if we accept the principle of early completion of labour as the treatment of the condition, then the Bossi dilator enables us to do this more quickly than any other means; further, it would seem to do so with safety if properly used.

IS RUPTURE OF THE AORTIC VALVE AN ACCIDENT UNDER THE WORKMEN'S COMPENSATION ACT?

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IN the BRITISH MEDICAL JOURNAL for January 3rd, 1903, is an annotation in which the question is raised whether rupture of the aortic valve can be considered an accident under the Workmen's Compensation Act. Probably few will deny that it appears possible that a healthy aortic valve segment may be ruptured under exceptional circumstances. For example, there seems to be some evidence to show that one or more coats of a healthy aorta may, in rare instances, rupture, and it must be supposed that an aortic valve segment has far less resisting power than the coats of a large artery; yet, although it may be admitted that a healthy aorta may rupture, it is scarcely necessary to remark that the number of cases in which the vessel wall gives way as the result of disease is immeasurably greater. But while this cannot be disputed and while it has long been known also that the aortic valve may be affected with the same disease or diseases as the aorta, yet the fact that, like the wall of the arterial trunk, a valve segment may yield and rupture as a consequence of such disease, appears to have been overlooked.

Difficult though it is to draw hard-and-fast lines between different forms of inflammation of the aorta, if there are not distinct diseases, at least there seem to be one or two varieties of disease. In one variety the formation of fibrous tissue, is the leading feature, and in another the deposition of calcareous salts. The aortic valve may be affected by either of these varieties. There may be extensive deposit of calcareous salts or deformities of various kinds may be the result of fibroid thickening of the valve segments. Where fibroid changes are present in the aortic valve, and are associated with similar disease in the aorta, the disease has apparently spread from the aorta to the valve. In support of this view, it may be mentioned that a case may occasionally be seen where the disease of the aorta is limited to one sinus of Valsalva, and the valve segment below it alone of the three is affected. Usually the fibroid changes in the aortic valve result in diminution in size of the segments allowing regurgitation, and occasionally the regurgitation may be rendered more marked by the retroversion of one of them. At other times, however, a valve segment, when softened by inflammation spreading from the aorta, yields before the arterial blood pressure, and bulges towards the ventricle, as can be well seen in a specimen in the museum of Guy's Hospital. In other cases a valve segment ruptures. In the Bristol Royal Infirmary Museum is a specimen (see illustration) showing an aortic valve segment which has ruptured, and above it the sinuses of Valsalva are affected with disease of the fibroid variety. Similar specimens may be seen in the Museum of the Royal College of Surgeons and of St. Bartho-

lomew's Hospital, and another is figured in the work on *Diseases of the Heart*, by Dr. Byrom Bramwell (p. 502). Perusal of records of cases of rupture of an aortic valve segment shows that the presence of disease of the aorta is invariably mentioned. Sir Walter Foster has recorded 3 cases in all of which the aorta was diseased (^{1, 2}). The same is true of cases recorded by Frew,³ Orlebar,⁴ and Burney Yeo.⁵ One of the cases mentioned in Dr. Peacock's lectures is obviously the same as that from which the specimen in the Museum of the Royal College of Surgeons was obtained. It has already been mentioned that in that specimen the aorta is diseased. In the second case of Dr. Peacock the aorta is not mentioned, but the same case is recorded in the *Medical Times and Gazette*, 1859, vol. i, p. 171; and there patches of atheroma are said to have been present in the ascending aorta.

Rough sketch of a specimen showing ruptured aortic valve segment associated with disease of the aorta.

One other point of interest may be referred to. Whatever may be the cause of the disease or diseases of the aorta classified under the name atheroma, there can be little doubt that the more fibroid type occurs most commonly in men who have been abroad. Clinical notes do not always record all the more important details of a man's history; but, judging not only from history, but from the characters of tattoo marks on the arms or elsewhere on the bodies of men who died of thoracic aneurysm and have come down to the *post-mortem* room of the Bristol Royal Infirmary, at least three out of four give evidence of having been soldiers or sailors, and have therefore presumably been in warmer climates. It is interesting to note in this connexion the previous history of the patients in those recorded cases of rupture of an aortic valve segment which have been referred to above. In four out of the five cases in which the previous history is mentioned the men had been to the tropics. The disease of aorta and of the aortic valve may be the result of untreated syphilis, or possibly it may be the result of some infection of the blood vessels which is more common in warmer climates than with us; but, whatever the cause of the disease may be, the fact seems to me to be clear that rupture of an aortic valve segment is, in the majority of instances, a result of the same disease as that which produces aneurysm of the aorta.

REFERENCES.

- ¹ *Med. Times and Gazette*, 1872, vol. ii, p. 657. ² *Path. Soc. Trans.*, vol. xviii, p. 49. ³ *BRITISH MEDICAL JOURNAL*, 1879, vol. i, p. 936. ⁴ *Path. Soc. Trans.*, vol. xxxi, p. 97. ⁵ *Ibid.*, vol. xxix, p. 63.

A NOTE ON THE THERAPEUTIC VALUE OF ADRENALIN.

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THIS is claimed to be the active principle of the suprarenal gland, and is conveniently supplied in an aseptic solution as adrenalin chloride solution 1 in 1,000, by Parke, Davis, and Co.