

A CASE OF EMBOLISM OF THE POPLITEAL ARTERY ASSOCIATED WITH BACTERIAL ENDOCARDITIS.

REPORTED BY

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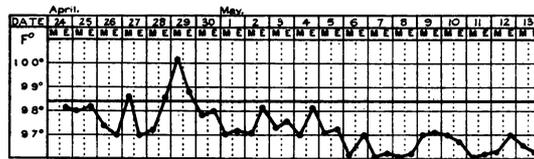
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THE post-mortem specimens from this case were demonstrated by Dr. W. Smith at one of the recent M.R.C.P. classes. The general history and clinical features of the case are of sufficient interest, since they present one or two slightly unusual features, to warrant publication.

The patient, a young man aged 25, was admitted to the Miller Hospital on April 24, 1933, with the following history:—

He had diphtheria at the age of 6, and a year afterwards he had rheumatic fever. At the age of 24 he had scarlet fever, following which he suffered from repeated sore throats. A slight hæmoptysis occurred in December 1932 and again in April 1933. Shortly before admission he complained of a sudden feeling of coldness in the left foot followed by intense pain from the foot to the knee.

On admission he had a good deal of dull aching pain in the left foot and ankle. The left leg was cold to the touch below the middle of the tibia, the coldness increasing



downwards to a maximum at the ankle. No pulsation could be felt in the popliteal artery or in the anterior tibial artery. The lower part of the limb was blanched when the leg was kept in the horizontal position, but on hanging the foot out of bed it became red, and there was some return of sensation. The patient insisted on getting the limb out of bed and hanging it over the edge, saying that this was the only way in which he could obtain relief from the pain.

The heart's apex-beat was felt in the 6th intercostal space in the mid-clavicular line, the impulse was forcible, and a soft "to and fro" murmur was audible over the mitral area in systole and diastole, more or less replacing the normal heart sounds. The blood-pressure readings were 100 (systolic), 80 (diastolic). The liver was not apparently enlarged; there were signs of congestion at the bases of the lungs. There was no œdema and no ascites.

All the time he was in hospital hæmoptysis continued daily, a considerable quantity of blood being expectorated in the form of dark clots. The pain in the left foot became more intolerable and was only relieved by morphia.

On May 1 slight jaundice was observed and the spleen was just palpable; slight clubbing of the fingers was noticed. No petechial eruptions appeared upon the body. The diastolic murmur became more audible in the mid-sternal region. The œdema of the foot, which had come on some days after admission, increased, and by May 11

there were obvious signs of heart-failure, enlargement of the liver and spleen, ascites, &c., the jaundice and hæmoptysis persisting.

The leucocyte count (May 3) showed a total white cell count of 14,800 per c.mm. A blood-culture was found to be sterile after six days. There was a persistent trace of albumin in the urine, but no blood was present. The patient died on May 13, a severe hæmoptysis occurring shortly before death.

The post-mortem findings were as follows:—

The body was that of an icteric man; there was much œdema, especially in the lower limbs below the knee.

Chest.—The pericardial sac contained a little free fluid: a few milk-spots were seen on the visceral pericardium.

All the valves of the heart were normal with the exception of the mitral. The mitral valve had only a small button-hole orifice. The cusps were firmly adherent to each other and thickened as the result of old endocarditis; on them were superimposed small friable vegetations of recent formation. Some ante-mortem clot was present in the right ventricle.

Both lungs showed multiple recent infarcts which were of large extent; these had occurred in all the lobes, so that very little normal lung tissue remained, and what there was of this was much engorged. The spleen, which weighed seven ounces, was engorged. An old embolus was discovered at the bifurcation of the left popliteal artery.

These findings suggest that this was a case of old-standing rheumatic mitral disease which had acquired a sub-acute bacterial endocarditis as a sequel to scarlet fever. One of the most interesting features was the absence of pyrexia. Although this is hardly usual, it did not exclude the diagnosis of sub-acute bacterial endocarditis, which was of course confirmed by the findings of recent vegetations superimposed upon the thickened and fibrous cusps of the mitral valve. From the clinical standpoint there was a certain amount of doubt as to whether the aortic valve had been affected. The character of the murmurs did not alter appreciably, but the fact that at one stage of the illness the diastolic murmur became more distinctly audible in the mid-sternal region, whereas at first it was detected only at the apex (in the mitral area), was suggestive of an early aortic involvement. This, however, was not confirmed by the post-mortem findings. The occurrence of an embolism in one of the main arteries is a phenomenon more likely to occur in cases where there are vegetations on the aortic valves. The low pulse-pressure (100 systolic, 80 diastolic = pulse pressure 20) was against a diagnosis of aortic regurgitation.



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