Since September, 1936, I have been using M. & B. 125, practically equivalent to proseptasine, at the Maternity Department of the Western General Hospital. Our intention there was to put every alternate case on prophylactic sulphonamide, but this routine has not been strictly adhered to, and there has been a tendency to select cases, the more serious ones and those more likely to be followed by infection being given the prophylactic doses. Two 7½-grain tablets were given four times a day for the first four days and one tablet three times a day for the next three days, so that the patients who were on this treatment received 307½ grains of sulphonamide in the week following delivery. No toxic symptoms of any significance or moment were observed, except in one case where a skin eruption occurred which was thought to be due to the sulphonamide medication.

Among 322 patients who received prophylactic sulphonamide there were twenty cases of morbid puerperia, but of these only six were due to local uterine infection, while one developed definite puerperal sepsis. Of 383 cases to which the sulphonamide was not given there were fifteen who showed signs of morbid puerperia, but of these again only six showed symptoms of local uterine infection, while one developed puerperal septicaemia. In this investigation, therefore, the general result seems negative.

My colleagues and I desire to express our thanks to Messrs. May and Baker and to Bayer Products Ltd. for their generosity in providing their drugs.

THE EARLY OCCURRENCE OF HIGH BLOOD PRESSURE IN COARCTATION OF THE AORTA

BY

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In recording high blood pressure as a regular feature of coarctation of the aorta Sir Thomas Lewis (1933) wrote: "We still lack records covering the periods of childhood and adolescence, during which seemingly very few cases are diagnosed. While it may be highly probable that coarctation means high pressure from a time shortly after birth to the time when cardiac failure supervenes, or death occurs from other cause, the gap that is still present in our evidence forbids us finally to draw the corresponding conclusion."

The youngest case then on record was a boy of 14 who had coarctation and a blood pressure of 150 mm. systolic (Hamilton and Abbott, 1927–8). Wilkinson (1932–3) published the case of a child of 4 years whose blood pressure was 150 mm. in the arms and who had only feeble pulsation in the iliac artery. In his case there was no evidence of anastomotic vessels. Sheldon (1932–3) published a case in the same year—that of a child of 12 in whom the blood pressure was 150 mm. in the arms and who had evidence of collateral circulation.

Case Report

The case here recorded was seen recently. The patient was a boy of 3 years. At birth artificial respiration was required, and during the first fortnight of life he became blue very easily and was treated for this with oxygen. Afterwards he was apparently normal and able to play with other children. His parents noticed that he became blue rather easily in the cold but not at other times. On examination he was found to be a small but well-nourished child without cyanosis. His heart was enlarged, the impulse being visible 2 cm. outside the nipple-line in the fifth space, and the right border of cardiac dullness 1 cm. to the right of the mid-line. Dullness to percussion was found in the first and second spaces to the left of the sternum. A systolic thrill was felt to the right of the sternum in the second space and a harsh systolic murmur maximal at this point. A systolic murmur was heard over the inner ends of all the right intercostal spaces and in the same line below the costal margin, and in the neck. A similar murmur was heard along the left border of the sternum, but it was not so extensive. These murmurs probably resulted from enlarged internal mammary arteries. The heart sounds at the apex were normal. The radial pulses were full, but neither femoral pulse could be felt, nor was there any pulsation in the posterior tibial or dorsalis pedis arteries of either leg. Anastomotic vessels were then searched for and found. There was visible pulsation from anastomotic arteries running out of the subclavian triangle and under the anterior border of the trapezius, more prominent on the right than on the left; a thrill was felt over them on the right side. A tortuous artery was seen pulsating in the right axilla, and it could be traced from under the scapula and passing deep to the pectoral muscles. Pulsation was also found on the back, in the second, fourth, and fifth right spaces, and a systolic murmur was heard over all these areas. Radiographs failed to show any erosion of the ribs. When first seen in December, 1937, the blood pressure in the right arm was 150 mm. systolic and 85 mm. diastolic measured by auscultation, and 140 mm. measured by palpation. The pressure in the left arm was always about 40 mm. lower than that in the right arm. In January, 1938, when the patient was seen again, the pressure in the right arm was 162 mm. After resting for half an hour the pressure was 160 mm., and after another fifteen minutes' rest it was 158 mm. All these readings were taken with a sphygmomanometer by palpation.

Commentary

These cases help to fill the gap referred to earlier, and indicate that the blood pressure in coarctation of the aorta is high throughout life. The demonstration of high blood pressure in the child is important because it occurs at a period of life when high pressure from other cause is extremely rare. The conclusion, which may now be formed with more certainty, that high pressure is lifelong in coarctation is of value because these cases are useful in studying the effects of long-lasting high pressure of a relatively uncomplicated kind and in comparing the arteries in upper and lower limbs where they are submitted to very different pressures.

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The British *X*-Ray and Radium Protection Committee was formed in 1921, as the result of joint action between the Royal Society of Medicine, the Röntgen Society, the British Association for the Advancement of Radiology and Physiotherapy (now the British Institute of Radiology, incorporated with the Röntgen Society), the Institute of Physics, the London Radium Institute, and the National Physical Laboratory. The personnel of the committee was afterwards widened to include representatives from the provincial schools. Its first recommendations were issued in 1921, and these were revised in 1923, 1927, and 1934. A further revised report, dated January, 1938, has now appeared, and copies may be had from the honorary secretaries of the Protection Committee at 32, Welbeck Street, London, W.1, or the director, National Physical Laboratory, Teddington, Middlesex.