



THE MIDWIVES' UNION SECTION

Hon. Secretary:—Miss S. M. Round (Sister Sallie), All Saints' Dispensary, Panvel, Dt. Colaba, Bombay.

Members are asked to send any helpful notes of cases, and articles for this Section to the Secretary.

STREPTOCOCCAL INFECTIONS

New Treatment by Prontosil

By B. A. PETERS, M.D. (Cantab.), D.P.H.

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Of all the disease-producing bacteria which cause death in a temperate climate, the streptococcus is probably the most destructive. There are very numerous strains, varying slightly in their properties, of which the most deadly group is that which has the power of destroying the red blood corpuscles. These are called hæmolytic strains and are the causes of scarlet fever, erysipelas, septicæmia, cellulitis, puerperal fever, septic bronchopneumonia, and the gravest forms of septic infection generally.

The method of attack is by two distinct means. They produce a soluble toxin or chemical substance which is carried throughout the blood stream, and, in those not immune to the toxin, it produces fever and a scarletiform or septic rash. In recent years an antitoxin to this rash-producing toxin has been manufactured by immunising horses against the toxin. The serum of such horses is beneficial in scarlet fever, in which the toxic effects of the infection are most conspicuous. Unfortunately, it has not been of consistent value in treating the graver forms of streptococcal infection, because here the other method of attack of the organism is most in evidence, namely, its power of invading and multiplying in the blood stream and tissues, causing septicæmia or cellulitis.

A Yellow Dye

Up to recently no effective means have been available to destroy the invader in the tissues without equally destroying the tissues. Within the past year a yellow dye, called Prontosil, has been made, which, in experiments in the test tube, on artificially infected animals and on human beings, has been shown to be capable of destroying the germ without seriously damaging the patient. This drug colours the patient's urine bright orange-red, and in some cases the skin of the patient becomes slightly yellow temporarily.

The original drug is a complex organic compound, but further experiment showed that it was broken up in the body to a much simpler, colourless compound, commonly known as 'sulphamylamide,' which is the active agent. This latter substance is now procurable under various names, and can safely be given in doses up to 6 grammes a day in tablet form by mouth.

Striking Results

Most striking results in puerperal fever were shown by Colebrook and Kenny (1936) in the practice of the Queen Charlotte Hospital, where there was a reduction in mortality, compared with the previous few years, from over 20 per cent. to 47 per cent. in cases treated with the original Prontosil. From all quarters reports are now being published of strikingly beneficial results in severe septic cases treated with this drug.

The drug should not be given, as a rule, when kidney disease is present. It should not be given with sulphur-containing drugs, as Epsom-salt, or with foods rich in sulphur, such as eggs, or else it may produce extreme cyanosis of the patient due to the conversion of the oxygen-carrying pigment of the blood into a compound useless to the patient, called sulphæmoglobin. No fatality has so far been recorded from this condition, but, if the cause were unrecognised and the drug continued, the patient would die, as his blood could no longer carry oxygen to the tissues. On stopping the drug this cyanosis speedily disappears. It is probable, if this drug were used in puerperal cases where sepsis was more likely owing to instrumental interference, etc., or in any severe accident cases, as a preventive, that the grave complication of streptococcal invasion might be prevented. This has not yet been proved, but all experience so far suggests that in this new drug we have a very valuable agent for combating a formerly intractable form of infection.

ANTE-NATAL AND POST-NATAL HAEMORRHAGE

By ALAN BREWS, M.S., M.D., F.R.C.S.

This is a subject about which there ought to be no two minds as regards the treatment. To the midwife it is a matter of first-aid and the simpler the treatment the better. A case may occur in a West End house where there is every luxury or in a country cottage where there is no luxury at all. Any mother is liable to it. Ante-natal hæmorrhage is the alleged cause of 8 per cent. of the present maternal mortality, and post-partum of 6 per cent. The latter is the more common and the more essential for the midwife to understand clearly that it may not prove fatal. Post-partum hæmorrhage is any bleeding in excess of the normal from the time the baby is completely born up to six weeks after delivery; primary post-partum hæmorrhage occurs within twenty-four hours after birth, secondary from any time after that until the end of six weeks. The loss of from half a pint to a pint of blood with the placenta is normal, and there is also the loss of red lochia from six to ten days. Occasionally when a woman has not fed her child she may have a menstrual period at the end of six weeks which may be a very heavy one.

Three Categories

Post-partum hæmorrhage falls into three categories—when the placenta is not born, when placenta and membranes are born, and when placenta and membranes are incompletely born. It is of the utmost importance that no piece of placenta should be left behind, and it is impossible to over-stress the need of putting the placenta in a bowl or bath and making absolutely certain that it is all there. A statement should be put on every patient's chart to the effect that the placenta has been examined and found perfect. Now in the case of bleeding after the baby is born what is the midwife to do? There may be a trickle of blood from the placenta or there may be profuse hæmorrhage. The placenta must be expressed in the safest, quickest and easiest way. The uterus must be massaged until it is hard and squeezed from above downwards.

The external method of expressing the placenta entails no risk of infection, and is completely satisfactory in a large number of cases. It may hurt the patient somewhat, but it must be done. If you find it impossible to squeeze the placenta in this way it will be necessary to put the hand into the uterus and remove the placenta manually. This is not often called for, and it is dangerous, for it is very possible to infect the mother by this means. Of course, medical aid should ideally be summoned at once in such a condition, but if a patient is pouring with blood there is no time to send