factor VIII level—in other words, acceleration of the intrinsic clotting system—but no changes were detected in the extrinsic system involving factor VII. This is the reverse of the finding in the women on oral contraceptives and the patients with established deep-vein thrombosis.

Heparin plasma clotting-times showed a dramatic shortening in the patients with deep-vein thrombosis, confirming our previous studies. This showed no acceleration, however, after a course of oral contraception, and there was no tendency to shortened clotting-times with increased periods of administration. This is an important point of difference from the thrombotic patients, who, in addition to raised factor VII levels, showed markedly reduced heparin clotting-times.

Summary

A study has been made on the effects of oral contraception on blood coagulability in women being treated with a variety of commercial preparations. The results were compared with those in a group of normal female controls. The results were also contrasted with the effects of exercise on coagulability in normal women using the same techniques and with results in patients with deep-vein thrombosis who presented during the period of the trial.

We found that oral contraceptives caused a rise in factor VII levels significant from the third month onwards. No significant changes in cephalin times or A.H.G. levels were recorded in this group, unlike the physiological changes found after physical exercise in normal women. Increases in factor VII levels were detected also in a concurrent study of patients with deep-vein thrombosis, but these were also associated with shortened heparin clotting-times not found in the women on oral contra-

ceptives. It is considered that this increase in factor VII levels, which is also found in normal pregnancy and the post-partum state as well as in venous thrombosis, is an undesirable side-effect of oral contraception. No woman in this study had been on treatment for more than two and a half years, and further study is necessary to determine whether different changes occur at a later date. It will be important to determine also in future investigations whether all the preparations available are equally liable to produce raised factor VII levels.

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The Plastibell Technique for Circumcision

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We wish to draw attention to a method of circumcision introduced in the United States by Kariher and Smith (1956), but little known in other countries. The technique has many advantages over other procedures, and in our view is the method of choice in the newborn period. Without wishing to enter into the arguments for or against routine circumcision, some parents demand to have the operation performed, and refusal to do so merely results in transferring the onus elsewhere. This report is based on our combined experience with the device in over 150 circumcisions in the past four years.

Patients and Methods

All the operations were performed at the parents' request, mostly six to eight days after birth, but in some as late as at 14 weeks of age. The technique may be used immediately after delivery, as is fashionable in the United States, but it is probably better to wait until it is evident that the baby is making normal progress. Premedication is unnecessary, but newborn infants who have not already received prophylactic vitamin K at birth are given 1 mg. intramuscularly. Normal

feeds are allowed before the operation, but the period immediately after a feed is avoided to lessen the possibility of regurgitation.

The sterile setting consists of two fine artery forceps, a probe, fine-toothed dissecting forceps, a pair of scissors, a towel, and swabs. The Plastibell¹ (Fig. 1) and ligature, pre-sterilized in individual envelopes, is made in three sizes: small (11 mm.), regular (13 mm.), and large (15 mm.), but the 13-mm. bell is suitable in most cases.

Anaesthesia is unnecessary, and the baby is readily restrained by an assistant or by bandaging on to a firm pillow. The lower abdomen, penis, and perineum are cleaned with an antiseptic solution, such as 1% cetrimide or 0.2% chlorhexidine (surgical spirit may cause smarting and should be avoided), and draped with an O towel.

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¹ The Plastibell disposable circumcision device (with illustrated instructions) is made by Hollister Inc., 833 North Orleans Street, Chicago 10, Illinois, and distributed in the U.K. by Chas. F. Thackray Ltd., 38 Welbeck Street, London W.1.

The steps in the technique are as follows:

1. The preputial opening is stretched with artery forceps, and adhesions between the prepuce and the glans are freed with a probe.
2. A dorsal slit just under 1 cm. long is made with scissors. Bleeding can be almost completely prevented if the line of the incision is first crushed with artery forceps for one minute. It is better to make the incision too short than too long, since it can always be extended.

FIG. 1.—The Plastibell.

3. A pair of artery forceps are placed on the edges of the prepuce on either side of the incision. On separating the forceps the glans is brought into view. Sometimes it is partly concealed by the mucosa, which may require further incision so that the slits in the mucosa and skin are of equal length.
4. Any remaining adhesions are freed, and the prepuce is completely turned out to expose the coronal sulcus, which should be cleaned of smegma.
5. The bell is slipped over the glans as far as the preputial reflection. Provided the dorsal slit is not made too long, and the appropriate-sized bell is selected, it should stay in position comfortably and without pressure on the glans. Any tendency for the bell to slip out may be countered by crossing the two artery forceps.
6. The linen ligature is now tied around the prepuce on to the ridge of the bell as tightly as possible (Fig. 2).

FIG. 2.—The linen ligature is tied beneath the ridge of the bell. A Plastibell of appropriate size has been inserted over the glans and beneath the prepuce after freeing adhesions and making a dorsal slit.

7. After about a minute the preputial skin becomes insensitive and is trimmed off immediately distal to the ligature (Fig. 3). The final line of separation is at the site of the ligature, and removal of this skin ensures a minimum of tissue to necrose. Lastly, the handle is snapped off, leaving the bell in position.

Post-operatively no dressing is necessary and the baby can be bathed normally. Sedation is rarely needed, but, if it is,

10–15 mg. of phenobarbitone is usually adequate. The rim of skin under and distal to the ligature rapidly becomes dry and atrophic and separates together with the bell four to six days after operation. Oedema may result from failure to trim off the excess skin at the end of the operation or from using too small a bell. In the event of the latter, the bell can be removed without affecting the final result by cutting the ligature 36 to 48 hours after the operation. However, spontaneous separation is preferable, since the bell provides some initial protection for the raw glans and exposed meatus.

The final results of circumcision using the Plastibell device are uniformly excellent. So far we have not observed any complications resulting from this method of circumcision.

FIG. 3.—The superfluous skin is trimmed off after tying the ligature. The handle of the Plastibell is snapped off to expose the external urinary meatus, leaving the bell in position.

Discussion

The complications of circumcision by this technique are few and minor. In view of its safety and ease we have no doubt that it is a method of choice in the newborn period. The hazards of anaesthesia and haemorrhage with the conventional surgical procedure are eliminated, and it is almost impossible to remove too much skin. An inexperienced operator may attempt to insert the bell in the wrong layer if adhesions between the glans and the prepuce are not thoroughly separated. Some judgment is needed in selecting the correct size of bell for a particular infant. Another cause of oedema is failure to trim off excess skin after applying too loose a ligature. Oozing from the trimmed edge is readily stopped by adding a tighter ligature.

Most would agree that if circumcision is to be performed it is best done in the neonatal period. The Plastibell technique is safe for use on out-patients, and can be used on infants up to three months old. After this age a general anaesthetic and a larger bell than is obtainable at present would be required. The operation is well tolerated by the newborn. Only two stages of the procedure appear to be momentarily painful—namely, the initial crushing and the tying of the ligature—when the baby can usually be comforted by feeding from a bottle. Provided the expected sequence of events is explained, the appearance of the penis immediately after a Plastibell operation causes the parents considerably less anxiety than does that following the conventional operation.

Although circumcision in the first few weeks of life is rarely indicated medically, requests for the operation are frequent.

The attitude of the medical profession in this country against circumcision has hardened in recent years, so much so that sincere and reasonable requests by the parents are sometimes turned down, which may cause distress and result in the mother canvassing other doctors or hospitals in search of a willing surgeon. The parents' desire for their baby to be circumcised may be based on firmly held beliefs concerning hygiene, national or religious convictions, or a desire for conformity among the males of the family. Our policy in such cases is to perform the operation if the parents still request it after a frank discussion of the medical viewpoint.

Summary

A technique for circumcising the newborn, using a plastic bell to protect the glans, which also acts as a guide to the amount of prepuce to be removed, is described. Excellent results have been obtained with this technique in over 150 cases and there have been no complications.

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Haemangiosarcomatosis: Two Cases Presenting as Haematological Problems

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According to Willis (1960), haemangiosarcoma is a "very rare" tumour. However, within four years two cases involving this neoplasm have been investigated in the Department of Clinical Haematology at Manchester Royal Infirmary; their details are presented in this paper.

Case 1

A 33-year-old housewife developed pleuritic pain in February 1961. A month later she felt tired and ill, with pains in the limbs, and had become pale and very dyspnoeic. On admission to a local hospital in May she was febrile and the tip of the spleen was just palpable. A moderate normochromic anaemia was present (Hb 7.1 g./100 ml.) with a small number of red-cell and white-cell precursors in the peripheral blood. The total white-cell count and platelet count were normal. All investigations, including blood urea, liver-function tests, blood culture, and a search for L.E. cells were negative. No definite diagnosis was reached.

Prednisolone, penicillin, and blood transfusions were given. She improved and was discharged home on a reduced steroid dosage. Five days later, however, she was readmitted with epistaxis, purpura, vomiting, and pain in the left arm. The haemoglobin level had fallen to 4.9 g./100 ml. Steroid therapy was continued and she was transfused repeatedly. Four weeks later, when she was transferred to the Royal Infirmary, Manchester, there was still extensive purpura. In spite of the blood she had received the haemoglobin was still only 7.6 g./100 ml. The platelet count had fallen to 40,000/c.mm., and the leucocytes numbered 18,000/c.mm. There was still a leuco-erythroblastic peripheral blood picture.

All investigations remained negative. A sternal marrow specimen was unhelpful. However, a radiological skeletal survey revealed multiple osteolytic foci indicating widespread tumour involvement. She continued to receive steroids and blood transfusions; in addition, intravenous nitrogen mustard therapy—2×6 mg. Trillekamin (trimustine hydrochloride)—was given. There was no response; her condition deteriorated and 14 days later she died.

Pathology.—Necropsy confirmed the presence of haemorrhagic and partly necrotic tumour tissue in the upper end of the femora, humeri (with a pathological fracture through a deposit in the proximal left humerus), thoracic vertebrae, and throughout the rib cage. Tumour deposits were also present in the liver, spleen, right ovary, and right atrium. The lymph nodes were not involved.

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None of these tumour deposits could be confidently recognized as the primary.

Histology.—Sections from various sites showed a pleomorphic neoplasm comprising spindle and round-cell forms with reticular nuclei, few mitoses, but occasional binucleate cells. The tumour cells were arranged as compact masses often lining prominent vascular spaces (Fig. 1). In the spleen there were foci of myeloid metaplasia in the tumour tissue.

FIG. 1.—Case 1. Section of spleen showing edge of haemorrhagic area (H) lined by haemangiosarcomatous tissue (HS). (H. and E. ×170.)

Case 2

A 71-year-old woman was seen in the out-patient clinic, where she gave a five-month history of pain in the left hypochondrium. She was found to have an enlarged, unusually hard spleen, a moderate normochromic anaemia, and thrombocytopenia (platelet count 41,000/c.mm.). A small number of red-cell and white-cell precursors were present in the peripheral blood. Two months later, in January 1964, the abdominal pain had become more severe and