

in children, but did not actually observe it, nor was it found in the present study.

Pentazocine therefore appears to be a safe analgesic for postoperative analgesia in children aged 1 year and upwards, being comparable in effect to the addictive narcotics.

Summary

To investigate the postoperative analgesia in children, induced by pentazocine, a small open comparison was made with nepenthe in 10 patients aged 1 to 4, and a double-blind comparison with pethidine in 56 patients aged 5 to 14. All treatments proved effective in reducing pain with only a few minor side effects and with no marked effects on blood pressure, pulse, and respiration. There were no marked differences between children aged 5 to 8 and 9 to 14, though the latter were given twice the dosage of the former. Pentazocine appears to be a clinically useful and safe analgesic in children between 1 and 14 years old.

I thank Mr. H. A. Kidd for suggesting the study and for care of the patients; Mr. B. W. Wells, Mr. B. Flannery, and Mr. C. F. Critchley for use of their patients; Sister B. Neal and the senior nursing staff of Ward F5, St. Helier Hospital, for co-operation; and Mr. P. J. O'Donnell of Winthrop Laboratories, Surbiton, Surrey, for help and encouragement.

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Urine and stool collection for metabolic studies in the newborn

Urine and stool collection for metabolic and diagnostic studies is becoming an increasingly

important aspect of neonatal paediatrics. A number of different techniques have been described in recent years (Baldwin *et al.*, 1962; Liu and Anderson, 1967), but none has proved entirely satisfactory.

In our unit, 24-hour stool and urine samples have been routinely collected from the newborn for nearly 2 years, and over 80% of all collections have been complete and uncontaminated. The technique of collection is a modification of that of Liu and Anderson, but uses Hollister 24-hour U-Bags*. The collections have been equally successful in boys and girls.

Method

Attachment of urine bag. The infant's perineum is carefully cleaned with soap and water and thoroughly dried. The skin around the genitalia is then painted with compound tincture of benzoin using a cotton wool pledget and applicator. When this has dried, the urine bag is applied.

The attachment of the urine bag takes 2 individuals, and it is this step which is considered critical to the success of the collection. One person carefully stretches the skin, eliminating all skin folds and creases, while the second applies the bag (Fig. 1). This is stuck first across the perineum, then lateral to the vulva or scrotum, and finally onto the suprapubic region. If any folds or creases are left in the skin covered by the urine bag, the bag is removed and a fresh bag is applied.

Collection of stool. Once the urine bag is applied,

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FIG. 1.—The application of a urine bag to the perineum, showing the need for 2 individuals to eliminate skin creases.

the child is laid on a 10 cm thick latex mattress which is placed on top of the normal cot mattress, but is about 15 cm shorter. The infant's buttocks are at the lower end of the mattress, and a V-shaped notch is cut away from the mattress beneath the infant's anus. A piece of polyethylene sheeting is then laid in the notch and secured to the mattress with adhesive tape.

Once in position on the mattress the infant's hips are held loosely in abduction and flexion by slings made from soft muslin nappies and pinned to the latex mattress (Fig. 2).

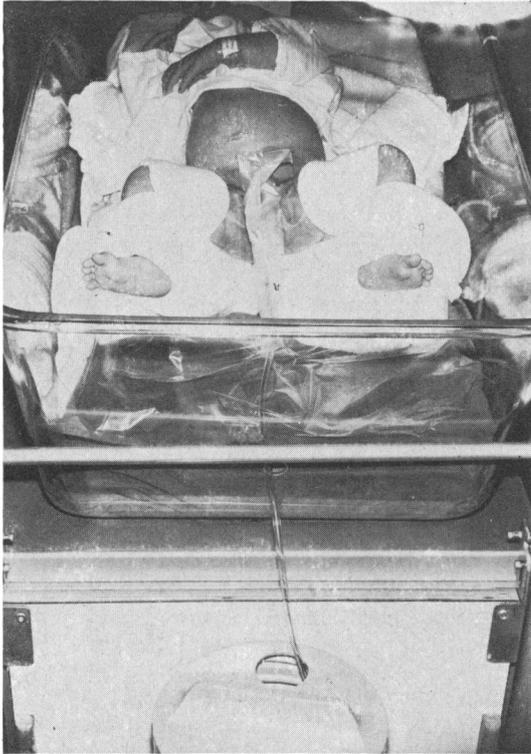


FIG. 2.—The infant in position for metabolic collections. The hips are abducted and flexed, and the anus and buttocks are clear of the polyethylene sheet in which stools will be collected.

When a stool is passed it falls clear of the child's perineum, directly onto the underlying polyethylene. The stool can then be collected directly by separating the polyethylene from the underlying latex mattress and putting it, with the stool inside, into a labelled wax carton, which is then put directly into the deep-freeze. The plastic sheet under the infant is then replaced.

Collection of urine. Urine drainage is maintained by a piece of tubing leading from the lower end of the urine bag, through a hole drilled in the lower end of the

cot, directly into a bottle surrounded by refrigerant material (Sno-Pak).

In this way the infants can be nursed for up to 3 days at a time with no obvious discomfort or disturbance. The babies fed, slept, and behaved normally; no pressure sores or ulcers developed on the ischial or sacral areas, and no skin rashes or breakdown underneath the adhesive were noted. However, in 3 male infants with large genitalia, blisters were noted on the penis or scrotum within 24 hours of attaching the bag. It was thought that this was due to friction between the relatively small inner bag of the U-Bag and the genitalia. Further collections in newborn boys with large genitalia were performed using 'Pediatric' size rather than the smaller 'Newborn' U-Bags.

Once on the latex mattress, the child could be tilted up or down or lifted, complete with mattress, to be fed, winded, or cuddled. Despite some initial concern that nursing the infants supine might predispose to inhalation of feed or vomit, no problems were encountered in over 150 24-hour stool collections involving over 1200 feeds.

Discussion

This technique of collection, when applied with meticulous attention to detail, has proved very successful in our hands. It is not disturbing for the infants, who behave normally throughout. The position of hip abduction in which the infants are restrained is similar to that routinely used in the correction of congenital dislocation of the hip, when it is tolerated well by infants for months at a time. Because of the relative simplicity of collection, it is suggested that this technique could be used in many general paediatric units without specialized facilities.

Summary

24-hour stool and urine samples have been successfully collected in the newborn by a modification of a previously described technique using continuously draining urine bags (Hollister 24-hour U-Bags), and polyethylene sheeting for the stool. There was infrequent contamination of stool by urine. This technique could be used in many general paediatric units without specialized facilities.

I am grateful to Miss M. Allen and the staff of the Newborn Nursery in Aberdeen for their co-operation; to Mrs. S. Alexander for assisting with collections; to the Scottish Home and Health Department for financial support; and to Abbott Laboratories Ltd. for a gift of Hollister U-bags.

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Erupted teeth in the newborn 6 members in a family

A familial tendency to have erupted teeth in the newborn period was first described by Limrick in 1893, and sporadic reports of up to 3 members in a family born with teeth have appeared since then. A family is described with 6 members having had erupted teeth in the newborn period probably following an autosomal dominant pattern of inheritance with limited penetrance.

Case reports (Fig.)

Case III.10. One of twins born after an uneventful pregnancy at 37 weeks' gestation. Presented at birth with an apparent eruption cyst. A lower central incisor erupted from this 3 days after birth and was removed without anaesthesia.

Case III.11. Twin sister of III.10 presented at birth with an identical lesion to her sister.

Case III.8. Sister of twins III.10 and 11 had a lower central incisor at birth. It was removed at 4 months because it was loose. The secondary dentition developed normally.

Case III.7. Two lower central incisors erupted when this otherwise normal girl was 1 month old.

Case III.1. An otherwise normal girl born with one lower central incisor. It was removed at 6 days because it was loose.

Case II.2. Normal eruption of teeth but with an imperforate anus and has a permanent colostomy.

Case II.3. Aunt of the affected members of the family. Born with 2 lower central incisors, an imperforate anus, and a rectovaginal fistula. Died at 5 months (in 1934) of septicaemia. No necropsy.

Case I.2. Died at 51 of cerebral haemorrhage.

There is no history of natal or neonatal teeth in the father of cases III.1, 2, and 3, nor in the mothers of cases III.7 and cases III.8 to 11, nor in their families apart from their own children.

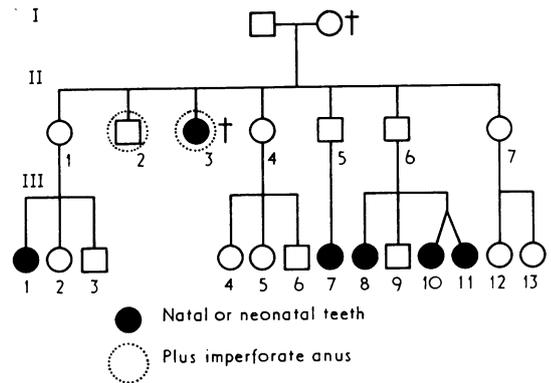


FIG.—Pedigree of family of whom 6 members had natively erupted teeth. †, death.

Discussion

Natal teeth have been known since ancient times. They were known to the Romans and to Shakespeare; Richard the Third was born with teeth. Some cultures regard them as a lucky event, particularly in Western Europe; however, in China they are regarded as an ill omen (Allwright, 1958). The incidence appears to be in the region of 1:2000 births in Great Britain (Gardiner, 1961).

Since the report of a mother, her son, and her sister's daughter by Limrick (1893), sporadic reports of up to 3 members of a family with natal teeth have appeared. 6 such reports were reviewed by Bodenhoff and Gorlin (1963). Gates (1946), largely on the basis of a family reported by Murray (1921), thought the condition was an 'irregular dominant'. Murray's family had associated hypertrophy of the nails and almost certainly had pachyonychia congenita. Gardiner (1961) found that 3 out of his 12 cases of natal teeth had a positive family history and Allwright (1958) found this in 2 of his series of 22.

No previous cases with a positive family history have been noted by paediatricians or dentists in Newcastle as far as we are aware, apart from 1 girl who had an erupted tooth at birth whose father, paternal uncle, and paternal aunt had teeth which erupted at 3 months of age.

Natal teeth are associated with 3 inherited syndromes: the Ellis-van Creveld syndrome is inherited in an autosomal recessive manner (polydactyly, short distal extremities, and nail hypoplasia), the Hallerman Streiff syndrome (microphthalmia, small beaked nose, and hypotrichia) is inherited as an autosomal dominant, and pachyonychia congenita (thickened nails and planto-