the medication. Despite instructions to reduce the number of capsules by only half when taking Cotazym-S-Forte, some patients reduced it by more than half without any significant alteration in fat malabsorption. This does not negate the results of this study as the aim of this study was to determine if Cotazym-S-Forte was as effective as Pancrease, not that it necessarily had better activity.

Individual microspheres of Cotazym-S-Forte have a mean (SD) diameter of 1.2 mm (0.4 mm), (personal communication, Organon) a size smaller than the average quoted size for Pancrease microspheres, <3 mm (product information, Cilag). Meyer *et al* have shown that while sphere size in the 1–3 mm range determines the rate of emptying from the stomach (independent of meal composition), microspheres should be in the range of 1.4 (0.3) mm to empty at the same rate as emulsified food. (Meyer J, Elashoff J, Porter-Fink V, Dressman J, Amidon G. What should be the size of pancreatin microspheres? Abstract presented at the American Gastroenterological Association Meeting, Chicago, May 1987.) Thus the microsphere size may be the reason why some patients were able to reduce their capsule intake to less than half their usual Pancrease dose without an alteration in the degree of fat malabsorption. Another possible and more likely explanation for the reduction in enzyme intake by more than half is that these patients were taking an excessive number of Pancrease capsules initially.

All patients involved with the study expressed preference for the Cotazym-S-Forte preparation due to the reduced number of capsules required. No side effects were noted. The diarrhoea experienced by one patient while on Cotazym-S-Forte is unlikely to have been a side effect as several members of his family, who do not have cystic fibrosis, had similar

symptoms at the same time. The preparation appears to be safe and acceptable.

With the advent of enteric coated pancreatic supplements our ability to provide adequate nutrition in cystic fibrosis has improved due to the greater utilisation of fat as an energy source. While it remains likely that in the foreseeable future enzymes will still be needed, a reduction in the number of capsules required would be of major benefit to these patients.

The results of this study have shown that Cotazym-S-Forte is as effective as Pancrease in correcting fat malabsorption in cystic fibrosis and has the added advantage of needing only about half the number of capsules.

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Spontaneous regression of congenital epulis of the newborn

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SUMMARY An infant with congenital gingival epulis which spontaneously regressed over the first year of life is reported. A policy of conservative management should be adopted in this condition unless there are feeding problems in the newborn period or reasons to doubt the diagnosis.

Congenital epulis of the newborn is a rare, benign tumour of the gingiva first described in 1871.¹ The aetiology and histological origin of the tumour are unknown and there are still doubts as to the natural history of the condition. The optimal management of congenital epulis is unclear and some authors have recommended simple excision in the neonatal period.² This report concerns an infant who pre-

sented with a congenital epulis arising from the anterior maxillary region that was managed conservatively. Subsequently there was spontaneous regression of the lesion during the first year of life.

Case report

A girl, weighing 3900 g, born at term by spontaneous vertex delivery after an uneventful pregnancy was noted to have a pedunculated, fleshy mass measuring some 1.5 cm in diameter arising from the right anterior alveolar margin (fig 1). There was no family history of congenital abnormality and the child was otherwise normal. Despite the size and prominence of the mass the infant fed satisfactorily from the breast and subsequently thrived.

Surgical excision was deferred and the child was reviewed regularly on an outpatient basis. There

Fig 1 Congenital epulis of the newborn photographed five days postpartum.

Fig 2 The same lesion 12 months later adjacent to the upper right deciduous lateral incisor (B/), virtually indistinguishable to the untrained eye.

was spontaneous regression of the epulis to a size of 3–4 mm by 12 months of age (fig 2). The primary dentition erupted uneventfully.

Discussion

Approximately 120 cases of congenital epulis of the newborn infant have been described in the literature since the first report in the 19th century,¹ and several important features have emerged. In a review of the 113 cases described between 1871 and 1971 Fuhr and Krogh noted a striking and unexplained preponderance of females, with the maxilla affected two to three times as often as the mandible.³ Rarely multiple lesions have been described with associated abnormalities of the nasal bridge and septum.⁴

The clinical diagnosis of congenital epulis is almost obligatory when a solitary tumour of the gingiva is present at birth. The diagnosis can only be confirmed by histological examination but this would involve surgical intervention, with the attendant risks of haemorrhage in a small neonate, and negate the conservative approach that some authors have advocated. The remote possibility of Epstein's pearls (gingival cysts) or of an eruption cyst arising prematurely would not be consistent with the clinical characteristics of the lesion which is pink, rubbery firm, and present at birth. The other possible diagnosis is that of an isolated premature nodule of fibromatosis gingivae but the subsequent clinical history in our case was not consistent with this.

There are no reports of recurrence of congenital epulis after excision, or of metastasis, and the histological appearance of the lesion is usually that of a granular cell myoblastoma without pseudo-epitheliomatous hyperplasia.⁵ The aetiology of the condition is unknown, and the natural history and optimal management of the lesion are not well defined. Most cases of congenital epulis are treated surgically and some texts recommend early excision of the lesions in the newborn period.²

Despite the fact that this lesion is probably hamartomatous and neither inflammatory nor neoplastic, excision of a sessile epulis may expose a wide base which can bleed persistently and in early infancy precautions must be taken to limit blood loss to an absolute minimum. Parenteral vitamin K, atraumatic intubation, the use of local anaesthetic with vasoconstrictor, excision without margins, and bipolar coagulation should all be employed if surgical excision is indicated. Welbury,⁶ however, has advocated an expectant, non-operative approach as the management of choice and, having adopted this policy in our case, there was consider-

able spontaneous regression of the lesion by the age of one year. Alveolar development and the early dentition appear to have been unaffected.

It may well be that congenital epulis of the newborn is not as rare as has been previously believed and perhaps, with a greater awareness and reporting of the condition, its natural history will become more evident. In the meantime, contrary to the opinions of some authors, we would strongly advocate a conservative approach to the lesion unless there are feeding problems or diagnostic doubt that necessitate surgical intervention. If there are obvious and troublesome feeding difficulties in the newborn period simple excision with the precautions outlined above is the treatment of choice.

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