

The incidence of phimosis in boys

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Objective To establish the incidence of pathological phimosis in boys.

Patients and methods A 2-year review of circumcisions was performed for phimosis among a known population of boys, with the histological findings of the circumcision specimens assessed.

Results Sixty-two boys (all but one aged 5–14 years) had typical pathological (cicatrizing) phimosis and among the 51 circumcision specimens examined histologically, 43 (84%) showed appearances of balanitis xerotica obliterans. During the same period, 30 boys

were circumcised for developmental unretractability of the foreskin ('physiological phimosis').

Conclusions The incidence of pathological phimosis in boys was 0.4 cases/1000 boys per year, or 0.6% of boys affected by their 15th birthday, a value lower than previous estimates and exceeded more than eight-fold by the proportion of English boys currently circumcised for 'phimosis'.

Keywords Circumcision, phimosis, balanitis xerotica obliterans

Introduction

There is general acceptance that pathological phimosis, with cicatrization of the preputial orifice, usually caused by balanitis xerotica obliterans (BXO) [1,2], represents the one absolute indication for circumcision. However, the incidence of this complaint and hence the proportion of boys unquestionably needing circumcision remains to be established, as the little data that exists enable only an approximation. Among 173 boys serially examined by Øster [3] from 6–17 years of age, three developed 'secondary' phimosis, presumptively pathological, giving an incidence of 1.7%. Extrapolation from a series of 23 boys with pathological phimosis examined in Sheffield during a 9-month period [1] arrived at a lower incidence of 0.8%, but this was based on few patients, an imprecise knowledge of the catchment population and the assumption that all boys with this complaint within that population were referred to the city's paediatric surgeons. Thus the present study aimed to establish more precisely the incidence of pathological phimosis among boys.

Patients and methods

The study comprised a review of all medically indicated circumcisions performed for 'phimosis' at Alder Hey Children's Hospital during the 2 years from July 1996 onward, on boys resident in the Liverpool and Sefton Health Districts. These Districts, with a population of boys aged 0–14 years of $\approx 76\,000$, are serviced exclusively for

paediatric purposes by this hospital. Because of previous experience [1,4], the appearances of pathological phimosis are well recognized by all five consultant firms accepting referrals for circumcision and except for one firm, it has been routine practice to submit circumcision specimens from such cases for histological examination. It is similarly recognized that in boys, unretractability of the prepuce is far more often developmental [3,5] than pathological. Although such 'physiological phimosis' is almost always self-resolving [3], circumcision may occasionally be indicated for symptoms or persistence, e.g. beyond 10 years of age, or may be performed because of parental pressure. In such cases, which show no macroscopic pathology, circumcision specimens were not submitted for histological examination.

Results

During the 2-year period reviewed, 62 boys were circumcised for typical cicatrizing pathological phimosis, one 4 years old, the remainder aged 5–14 years. The circumcision specimens were examined histologically in 51 instances, 43 (84%) revealing appearances characteristic of BXO and nine of nonspecific dermal fibrosis. During this same period, 30 boys (aged 0–14 years) were circumcised for developmental unretractability of the foreskin.

Discussion

The 62 cases of pathological phimosis seen during a 2-year period among a population of 76 000 boys represents an incidence of this complaint of 0.4 cases/1000

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boys per year, cumulatively, 0.6% of boys affected by their 15th birthday, a proportion appreciably less than that derived from Øster's [3] limited data, but one differing little from that extrapolated from the Sheffield series [1] of 0.8%. This latter value was based on an assumed population of boys from Sheffield alone of $\approx 55\,000$ and if, as is likely, a proportion of patients came from outside that population, the past and present estimates of the incidence of pathological phimosis among boys become still closer. If it is assumed that 84% of cases of pathological phimosis have the histological features of BXO, the incidence becomes 0.3 cases/1000 boys per year, or 0.5% of boys affected by their 15th birthday.

The number of boys in England as a whole currently circumcised for 'phimosis', at 3.3/1000 per year [6], consequently exceeds by more than eight times that expected from the present estimate of the incidence of pathological phimosis, and by more than five times even that anticipated with the present cases of developmental unretractability of the foreskin added to the equation.

References

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