Biopsy taken at orchidopexy was associated with an increased risk for testicular cancer in boys with cryptorchidism


Objective
To determine whether an association exists between cryptorchidism and testicular cancer in boys.

Design
Cohort study.

Setting
Hospital in London, U.K.

Participants
1075 boys with cryptorchidism who had had orchidopexy or hormonal treatment. Patients were excluded if they had any major congenital malformations or syndromes of which cryptorchidism only formed a minor part.

Assessment of risk factors
A standardised abstraction schedule was used to obtain data from hospital notes on demographic details, type of maldescent and its treatment, other diseases, and biopsy results and from other investigations done.

Main outcome measure
Incidence of testicular cancer. Follow-up information was extracted on mortality, cancer registrations, and emigrations from the National Health Service Central Register. Patients' current general practitioners were sent a questionnaire to determine whether the patient had had further operations and whether testicular cancer had occurred.

Main results
12 patients presented with testicular cancer during follow-up (9 teratomas, 2 seminomas, and 1 mixed teratoma-seminoma). The relative risk (RR) for testicular cancer in the cohort compared with that in the general population was 7.5 (95% CI 3.9 to 12.8). The RR for malignant cancer in an undescended testis compared with a testis in a man from the general population was 11.3 (CI 5.9 to 19.4). The risk for testicular cancer compared with the general population was greater in patients who had had a biopsy sample removed at orchidopexy than in those who had not had a biopsy sample (P < 0.001; RR 66.7, CI 23.9 to 13.5 for patients who had had a biopsy; 6.7, CI 2.7 to 13.5 for patients who had not had a biopsy).

Conclusion
Boys with cryptorchidism had an increased risk for testicular cancer compared with the general population. Orchidopexy was associated with a decreased risk for testicular cancer

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Commentary
This carefully studied cohort of 1075 boys treated for cryptorchidism through the British National Health Service confirms the known increased risk for eventual development of cancer in this population (RR in an undescended testis is 11.3 compared with a descended testis in the general population). Age at orchidopexy had no demonstrable bearing on the development of malignancy, leaving unproved the theoretical benefit of early correction of maldescent.

An unexpected and very important finding from this retrospective analysis was the strong association between biopsy of the testis at time of orchidopexy and later development of cancer. Risk for eventual malignancy was 66.7 in testes compared with 6.7 for similar testes in which no biopsy had been done. No physical differences were described, nor were other reasons given about why testes had to have biopsies done. For example, subtle changes, such as alteration in consistency of the testis, might not have been mentioned. Biopsy was done on 0.085% of descended testes. Incidence at 9 years of age. The can apparent positive relation between lar biopsy (open biopsy in each case) and subsequent mortality in this cohort is unknown, altho mal studies have shown major histologic changes in traumatised testes. Bio course of correction of cryptopen not standard practice, and this re firmed the wisdom of that appro

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