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Literature Review of Rare Synchronous Tumours

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Abstract : We present the first reported case of a concomitant Leydig cell tumor (LCT) and paratesticular leiomyoma in an adult male with a known history of bilateral cryptorchidism. An 80-year-old male presented with a 2-month history of a left testicular lump associated with mild discomfort and a gradual increase in size on a background of bilateral cryptorchidism requiring multiple orchidopexy procedures as a child. Ultrasound confirmed a lesion suspicious for malignancy and he proceeded to a left radical orchidectomy. Histopathological assessment of the left testis revealed a concomitant testicular LCT with malignant features and paratesticular leiomyoma. Leydig cell tumors (LCTs) are the most common pure testicular sex cord-stromal tumors, accounting for up to 3% of all testicular tumors. They can occur at almost any age, but are noted to have a bi-modal distribution, with a peak incidence at 6 to 10 and at 20 to 50 years of age. LCT's are often hormonally active and can lead to feminizing or virilizing syndromes. LCT's are usually regarded as benign but can rarely exhibit malignant traits. Paratesticular tumours are uncommon and their reported prevalence varies between 3% and 16%. They occur in a complex anatomical area which includes the contents of the spermatic cord, testicular tunics, epididymis and vestigial remnants. Up to 90% of paratesticular tumours are believed to originate from the spermatic cord, though it is often difficult to definitively ascertain the exact site of origin. Although any type of soft-tissue neoplasm can be found in the paratesticular region, the most common benign tumors reported are lipomas of the spermatic cord, adenomatoid tumours of the epididymis and leiomyomas of the testis. Genetic studies have identified potential mutations that could potentially cause LCTs, but there are no known associations between concomitant LCTs and paratesticular tumors. The presence of cryptorchidism in adults with both LCTs and paratesticular neoplasms individually has been previously reported and it appears intuitive that cryptorchidism is likely to be associated with the concomitant presentation in this case report. This report represents the first documented case in the literature of a unilateral concomitant LCT and paratesticular leiomyoma on a background of bilateral cryptorchidism.

Keywords : testicular cancer, leydig cell tumour, leiomyoma, paratesticular neoplasms
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