Diagnostic and Therapeutic Management of Mesothelioma of the Tunica Vaginalis Testis: A Population-Based Study in Italy

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Background

Mesothelioma of the tunica vaginalis testis (MTVT) is an exceedingly rare tumor. We performed a registry-based study on MTVT patient management and survival in Italy.

Methods

Cases were extracted from the dataset of the Italian National Mesothelioma Registry. A descriptive analysis of patient characteristics, including asbestos exposure, clinical presentation, diagnostic work-up and therapeutic management, was performed. Overall survival was evaluated. We calculated hazard ratios (HR) and 95% confidence intervals (CI) for selected variables by fitting univariate and multivariable Cox models.

Results

Overall, 104 patients with MTVT were included. Median age was 72 years (range 17-92). Epithelioid histotype was the most frequent. Previous asbestos exposure was identified in two thirds of cases. Data on diagnostic and therapeutic management were available for 74 patients (71%). The most frequent presentations were scrotal swelling/mass, hydrocele and inguinal pain. All patients underwent surgery, mostly with orchi-funicolectomy. Adjuvant therapy was administered to 15 patients (20%). Overall median survival was 26.2 months (95% CI 22.1-52.1); 3-, 5- and 10-year survival was 49%, 30% and 18%. Older age at diagnosis and presence of distant metastasis (HR 1.91, CI: 0.85-4.26) were negative prognostic factors. Adjuvant therapy was associated with higher mortality (HR 2.54, CI: 1.25-5.15), indicating a more advanced stage at diagnosis.

Conclusions

Surgery remains the mainstay of treatment for MTVT; adjuvant therapy in our study did not improve outcome. Data from cancer registries are essential for rare cancers, but they should be integrated routinely with additional diagnostic and therapeutic information.

Keywords: mesothelioma; rare cancers; survival; treatment; tunica vaginalis testis.