

SSR Annual Conference 2024
Abstract Title: Human benign Leydig cell tumour - biochemical evaluation
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Abstract Title: Human benign Leydig cell tumour - biochemical evaluation
ABSTRACT PREVIEW: HUMAN BENIGN LEYDIG CELL TUMOUR - BIOCHEMICAL EVALUATION

Human benign Leydig cell tumour - biochemical evaluation

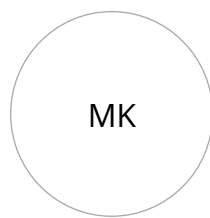
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Country Where Institution is Located

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Abstract Information

Topic

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2nd choice: Testis/Sperm
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Trainee Status

- I am not a trainee

SSR Membership Status

- Non-Member

Preferred Presentation Type

- ONLY Poster Presentation

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Abstract Text

Recently we reported expressional alterations in 219 genes of Leydig cell tumours but nowadays there is still a lack of full basic biochemical characteristics of Leydig cell tumours. The discovery of potential biochemical markers for tumour management from early detection, treatments, and control of therapy results may markedly supplement genetics data. Leydig cell micronodules were obtained from patients with azoospermia who were qualified for testicular biopsy. The biochemistry of Leydig cell tumours was analyzed using histological staining and spectrophotometric measurements of total proteins, carbohydrates, lipids and nucleic acids. In addition, the levels of calcium (Ca^{2+}), copper (Cu^{2+}), zinc (Zn^{2+}) and selenium (Se^{2+}) ions were measured. When compared to healthy testis we revealed, for the first time, that in the interstitial tissue with Leydig cell tumours, great amounts of proteins, carbohydrates, lipids, and nucleic acids were dislocated from the seminiferous tubules. Measurements of organic compounds amount showed a decrease ($P < 0.001$) in their content in Leydig cell tumours that may be related to the altered biochemical structure of many of them. We found only changes in Cu^{2+} levels ($P < 0.05$) but not in concentrations of Ca^{2+} , Zn^{2+} , and Se^{2+} in Leydig cell tumours. This specific result may be promising for designing further approaches to manage this tumour based on combining morphological and molecular data.

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