项目名称: 泌尿系肿瘤病因机理与诊疗体系的创新

提名奖项和等级:科技进步二等奖

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项目简介: 本研究为泌尿系肿瘤发病机理与诊疗新方案的临床与实验研究，由1项国家自然科学基金面上项目课题、1项天津市科学技术局抗癌专项基金课题、1项天津市科学技术局重点项目课题、1项天津市科学技术局面上项目课题支持完成。共分2部分，13项研究。

第一部分为临床研究部分，主要研究内容为前列腺癌和膀胱癌的患病风险因素分析和膀胱癌临床诊疗新方案的临床试验。包括AMACR家族与前列腺癌风险和预后的相关性研究；rs11892031 and rs401681与膀胱癌风险和预后的相关性研究；P53基因突变与高级别膀胱癌诊断的回顾性分析；小细胞上尿路癌的生存进展因素分析；机器人辅助与开放性部分肾切除术的围手术期疗效比较的回顾性分析；经尿道广泛电切在非肌层浸润性膀胱癌诊断和治疗中的价值等6项研究。第二部分为基础研究，主要分为2个研究内容：1、膀胱癌信号通路的关键靶点；2、蛋白质组学鉴别去势抵抗性前列腺癌进展相关分子标记物等7项研究。

研究特点：1.临床研究从不同的方面探讨了前列腺癌和膀胱癌患者异质性的原因、危险因素、临床治疗学的现状和未来诊疗的新方案，对前列腺癌和膀胱癌的易感基因进行了回顾性系统分析。2. 本项目的实验研究部分主要针对膀胱癌的病因和机制进行了深入的研究，从动物模型、临床标本和细胞模型出发，较系统的阐明了有丝分裂激酶BUB1磷酸化激活STAT3调节干祖细胞增殖进而促进膀胱癌发生发展的具体机制。在国内率先开展的针对去势抵抗性前列腺癌的SILAC蛋白组学研究。

发现点/发明点/创新点：1. 深化了干细胞在膀胱癌中的作用机制的认识，从根本上揭示了干细胞是导致膀胱癌发生的原因之一，首次提出有丝分裂激酶BUB1蛋白激活STAT3信号通路进而促进膀胱癌干祖细胞生长，为膀胱癌的精准治疗提供了理论依据。2. 在国内首次应用SALIC磷酸化蛋白组学技术鉴定出PAK2与YAP1等靶蛋白，首次提出雄激素受体甲基化抑制YAP1表达的理论。继而提出新治疗策略，雄激素阻断治疗联合抗肿瘤干细胞治疗方案。3. 本项目提出的机器人辅助肾癌部分肾切除术新治疗疗模式。与开放肾癌部分肾切除术手术相比，机器人辅助肾部分切除术提供了较低的围手术期并发症发生率、较少的估计出血量和更短的手术时间住院时间，表明机器人辅助肾部分切除术可能是开放肾部分切除术的有效替代方案。4.提出AMACR基因可以作为评价前列腺癌患病风险的指标之一。

主要技术支撑材料等。

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