Encouraging laparoscopic renal cryoablation outcomes at 3 years

In order to determine the oncological efficacy of laparoscopic renal cryoablation, meticulous long-term follow-up is necessary. Gill *et al*. have therefore investigated renal small tumors in 56 patients who underwent this minimally invasive procedure and had completed 3 years of follow-up.

After surgery, follow-up included radiological, histologic and renal function evaluation. In addition, MRI was performed at 1 day and at 1, 3, 6, 12, 18 and 24 months postoperatively, and then annually for a minimum of 3 years.

MRI results showed that the average cryolesion size decreased with time, averaging a 75% reduction at 3 years. Furthermore, 17 cryoblated tumors were undetectable on MRI scan at the end of the follow-up period. There was also minimal impact on renal function in these patients. A further 39 patients underwent 6-month postoperative CT-directed needle biopsy for histopathologic examination. This confirmed locally persistent/recurrent renal tumors in two patients. These patients underwent secondary laparoscopic radical nephrectomy, and at 2.5 and 3 years follow-up no evidence of locally/recurrent metastatic disease was found.

The authors believe that to achieve optimum results, renal cryoablation should be performed in carefully selected older patients with a small renal tumor (less than 3 cm). Even though these renal cryoablation outcomes are encouraging at 3 years and surgical complications minimal, the authors highlight the importance of a longer 5-year follow-up to renal cryoablation to validate the effectiveness of this minimally invasive approach.

Original article Gill IS *et al.* (2005) Renal cryoablation: outcome at 3 years. *J Urol* **173:** 1903–1907

CpG hypermethylation of the *GSTP1* promoter in prostate cancer patients from different ethnic groups

Glutathione S-transferase pi (GSTP1) has been the subject of several cancer studies. Recent work by Enokida and colleagues has investigated the role of inactivation of *GSTP1* by CpG hypermethylation in prostate cancer pathogenesis, and has asked whether this differs among ethnic groups.

Using a methylation-specific polymerase-chain-reaction technique, the team recorded the methylation status of the *GSTP1* promoter in 291 prostate cancer tissue samples. 170 samples were obtained from Asian patients, 44 from African-Americans, and 77 from Caucasians. The results were compared with those from 172 benign prostatic hyperplasia samples (96 from Asian patients, 38 from African-Americans, and 38 from Caucasians). As expected, this analysis showed that *GSTP1* hypermethylation was more common in prostate cancer than in benign prostatic hyperplasia (65.6% vs 24.5%, $P<0.0001$), across all ethnic groups. The difference was most pronounced among the African-American samples, however, and the authors suggest that *GSTP1* methylation is a useful biomarker for prostate cancer among this ethnic group.

Next, *GSTP1* methylation was correlated with pathologic stage and Gleason score. In both cases, the frequency of methylation was positively associated with the pathologic findings, suggesting a role for *GSTP1* methylation in tumor progression. Among the individual ethnic groups, however, this association was statistically significant only for the Asian patients.

In summary, the study indicates that *GSTP1* methylation is important in prostate cancer pathogenesis and that this epigenetic event differs among ethnic groups.

Original article Enokida H *et al.* (2005) Ethnic group-related differences in CpG hypermethylation of the GSTP1 gene promoter among African-American, Caucasian and Asian patients with prostate cancer. *Int J Cancer* **116:** 174–181

New salvage treatment for advanced urothelial tract cancers

Preclinical studies using xenograft models have shown that SCH66336 (lonafarnib), an orally administered tricyclic farnesyl transferase inhibitor, has significant antitumor activity. A European, multicenter study now demonstrates that combination therapy with SCH66336 and gemcitabine is a feasible second-line treatment in patients with advanced urothelial tract cancers, producing a higher overall response rate than is usually achieved in this setting.