



Re: Optical Endomicroscopy and the Road to Real-Time, in vivo Pathology: Present and Future

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EDITORIAL COMMENT

Approximately 85% of cancers are of epithelial origin. Most of these cancers progress through more pre-invasive pathological steps. Since the urinary bladder as the majority of internal organs topologically connected to the outside environment, endoscopy is the primary method to diagnose cancers. After the technological developments in the field of endoscopy, real-time optical endomicroscopy and in-vivo pathological investigation became a new concept. In most procedures, biopsy specimens obtained for pathological diagnosis are evaluated after the procedure, sometimes it may take weeks. Therefore, to establish a diagnosis of cancer as soon as possible is a new and actual concept in many studies. Several research groups and medical high-tech optical companies are developing instruments that significantly improve the resolving power possible in endoscopic applications and improve the observable contrast between normal and malignant tissue. These improvements at novel in-vivo confocal imaging techniques will lead to improved sensitivity and specificity of cancer detection. Confocal microendoscopy provides a means to visualize size and arrangement of cells, nuclei and tissue structure with or without the use of complex contrast agents in-vivo, without the need to excise the tissue. Confocal laser endomicroscopy (CLE), spectrally encoded confocal microscopy (SECM), angle-resolved low coherence interferometry (a/LCI), optical coherence tomography (OCT), optical frequency domain imaging (OFDI), and volumetric laser endomicroscopy (VLE) are current and investigational technologies for in-vivo imaging. In the near future, optical endomicroscopy will be candidate diagnostic and therapeutic option for cancer patients.

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Reconstructive Urology



Re: Simplified Reconstruction of Posterior Urethral Disruption Defects: Limited Role of Supracrural Rerouting

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EDITORIAL COMMENT

Posterior urethroplasty technique for traumatic posterior urethral defects has a success rate of 90% in experienced hands (1,2). The authors reviewed the records of 142 patients who underwent reconstruction of traumatic posterior urethral defects with greater than 1 year of follow-up from 5 teaching hospitals. Prior treatments, surgical approach and ancillary techniques required during reconstruction were compiled. Direct anastomosis following scar excision and urethral mobilization alone was performed in 95 of the 142 males (67%). Corporal splitting was performed in 24 patients (17%) and inferior pubectomy in was done in 14 (10%). Supracrural urethral rerouting was performed in only 4 patients (3%), of whom 3 (75%) experienced recurrent stenosis. Abdominoperineal reconstruction, which was reserved mainly for salvage and pediatric cases, was required to reconstruct complex defects in 5 of the 142 cases (4%) and it was successful in 4 (80%). Overall successful posterior urethral reconstruction was achieved in 130 of 142 cases (92%). Eight failures were successfully managed by internal urethrotomy (2) or repeat urethroplasty. The authors concluded that corporal splitting or inferior pubectomy are rarely required for successful posterior urethral reconstruction. Urethral rerouting appears to be inferior to the abdominoperineal approach as a salvage technique for complex cases.

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