

## 6.12 Self-expanding metallic intraluminal stents for palliation of esophageal cancer

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**Purpose of study:** The use of self-expanding metallic stents for esophageal cancer is gaining importance as an effective option. Its safety and efficacy requires more evaluation. The present study reviewed our experience in the first 50 patients so treated.

**Methods:** Prospectively collected data on 50 consecutive patients who underwent endoscopic placement of metallic stents were analyzed.

**Results:** The median age was 72 (range 42-92). There were 39 male and 11 female patients. Squamous cell tumors and adenocarcinomas were found in 42 and 8 patients respectively. The majority of patients had middle third esophageal tumors while the 8 patients with adenocarcinomas had tumors straddling the gastroesophageal junction. The indications for stenting were locally advanced and metastatic tumor in 29 patients, advanced tumor with poor medical risk in 16, and poor medical risk for surgery in 5. Three types of stents were used: the Wallstent<sup>®</sup>, EsophagealCoil<sup>®</sup>, and Ultraflex<sup>®</sup>. No esophageal perforation was

encountered and there was no procedure-related mortality. The median pre-stent dysphagia score was 4 (fluids only), while the median post-stent score was 2 (semi-solid). Most patients could maintain alimentionation with a semi-solid diet till death. In 15 patients, further endoscopic interventions were necessary, most for bolus obstruction. All tracheo-esophageal fistulae (5 patients) were effectively sealed, and there was one incident of stent migration with a membrane-covered stent across the gastroesophageal junction. Median survival post stenting was 4.5 months.

**Conclusions:** Intraluminal metallic stents are safe and effective in relieving malignant esophageal obstruction. Procedure-related morbidity and mortality are low.

## 7.1 Immunosuppressive strategies in transplantation

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The rapid growth of solid organ transplantation is largely due to the availability of better immunosuppressive agents in the prevention and treatment of rejection. The utilization of different and ever improving treatment strategies derives from a progressively better understanding of transplant immunobiology. Azathioprine and corticosteroids were the basic immunosuppression until cyclosporine was introduced in the clinic in the 1980s. There was much expectation that polyclonal and later monoclonal antibodies would have an important part to play in controlling rejection. New discoveries in immunology have permitted the design of many new immunosuppressive strategies based specifically on the knowledge of the lymphocyte-activating cascade. Cyclosporine and FK506 both act on the calcineurin transcription process necessary for the synthesis of IL-2. Mycophenolate interfere with the proliferative response of lymphocytes and Rapamycin prevents lymphocytes from responding to IL2 cytokines. In the cyclosporine era, renal allograft are so successful that it is no longer appropriate to judge transplant outcome at the 1 year point; rather graft survival must be examined at 5, 10, or more to assess success. Additionally, successful transplantation of other organs, such as the heart, lung, and liver, can be performed with success rates approaching that for the kidney. Chronic allograft rejection is still a major challenge in organ transplantation. New agents such as Tacrolimus (FK506) and Rapamycin are currently under clinical studies for maintenance immunosuppression and prevention of chronic graft loss. New antibody therapies are now being designed to directly target the CD4 molecule, the IL-2 receptor, and the CD3 molecule by a humanized form of monoclonal anti-CD3, and adhesion molecules such as ICAM-1 or LFA-1. Two new antibodies that act on the IL-2 receptors are now available for clinical use. The monoclonal humanized anti-Fac (Zenapac) has shown good efficacy in the prevention of acute rejection in the kidney transplant. Zenapac binds to the p55 subunit of the IL-2 receptor and blocks the formation of the high affinity receptor and its subsequent activation by IL-2. A similar study using CHI-621, a chimeric humanized monoclonal antibody also targeted against the IL-2 receptor. As a result of better genetic engineered techniques, a variety of recombinant products have been produced designed to impair the function of the ligand-receptor accessory molecules. Of these, the CTLA4Ig fusion protein is the most promising and has been shown to be capable of inducing tolerance in experimental settings. Finally, gene transfer experiment of the transplanted organ has demonstrated the potential of using Fas/Fas-ligand pathway in inducing apoptosis of the T cell.

### References:

- Chan L and Kam I: Kidney Transplantation: Outcomes and complications of Renal Transplantation. In Diseases of the Kidney Vol III: 2713-2769 (1997)  
Chan L: Transplant rejection and its treatment. Current Medicine (in press)  
Terasaki P: Clinical Transplantation 1997.