Risk of Re-augmentation after Entercystoplasty

For patients with a neurogenic bladder the combination of clean intermittent catheterization and augmentation offers a safe continent alternative to suprapubic tubes, chronic indwelling urethral catheters, vesicostomies or sphincterotomies. While an established and effective part of the surgical repertoire of all pediatric urologists, some patients continue to have issues with postoperative storage safety, and a few may require a second augmentation. VanderBrink et al (page 612) from Ohio and Indiana examined the risk of repeat augmentation in patients with spina bifida. Reviewing 30 years of procedures, they found a low overall rate of re-augmentation of 3.3% at 15 years after surgery. The more contemporary cases were performed using detubularized and reconfigured bowel. When the results of these cases were examined only 1 of 162 required a second procedure. Modern techniques appear to have greatly diminished the risk for a second major reconstruction.

Hyperbaric Oxygen Therapy Improves Oral Graft Take

The casual inconspicuous presence of the atmosphere obscures the reality that we are constantly subject to shifts in air pressure. High atmospheric pressures result in higher partial pressures of the component gases, which leads to increased volumes of gases, especially nitrogen, being dissolved into the blood stream. If the return to a normal pressure situation is too rapid, the dissolved gases can come out of solution and form painful and dangerous bubbles in the vasculature and joints, which leads to decompression sickness. A treatment for this condition is the use of a hyperbaric chamber, which forces the gas back into solution. The success of such therapies naturally led some to wonder if increased oxygen pressures could help increase oxygen availability in the body, particularly in tissue that may not be well served by natural vasculature. Patients with microvascular disease or free tissue grafts might see improved healing with supranormal oxygen pressure.

Bush and Snodgrass (page 617) from Frisco, Texas explored the use of hyperbaric oxygen therapy in hopes of increasing the survival of buccal grafts in complex hypospadias procedures. In their series of staged tubularized autograft procedures the grafts appeared healthier and demonstrated less contraction after hyperbaric oxygen therapy. Because of the many variables involved in the management of complex hypospadias, where hyperbaric oxygen fits into hypospadias care remains incompletely understood. However, we should be open to developments that may improve tissue healing in these difficult to treat cases.