Opening statement

The joint meeting between AHS and EHS has been organized with the aim to strengthen the scientific and friendship links of our two Societies. The scientific programs have been developed by the scientific committees of both societies after several preliminary meetings with Dr. Bendavid. But he had, alone, the heavy task of the material organization of the meeting. I would like to congratulate him personally here for his efficacy, proven by the success of this first joint meeting. This issue of hernia is devoted to a selection of the papers presented at this meeting, and sent to us, with a few exceptions, in short form. Due to the lack of space, it was impossible to publish all papers; if the authors agree, they can be published in the 2001 forthcoming issues.

by: J.P. Chevrel, Secretary General EHS, Co-editor in chief, Hernia

Congress report

Toronto Joint meeting: AHS – EHS, "Hernia in the 21st Century"

A meeting to remember

The Hernia Congress was called to order on June 15, 2000 in Toronto Canada. This was the first joint meeting of the American Hernia Society (AHS) and European Hernia Society (EHS). The host and president elect of the AHS, Dr. Robert Bendavid was thanked by Dr. Francesco Corcione, president of the EHS, for his dedication to the organization and conduct of the meeting. Dr. Alexandre speaking for Jean Paul Chevrel, who unfortunately was ill and unable to attend, expressed his gratitude to Dr. Bendavid as well. Throughout the meeting and social events there was a general consensus of appreciation for the enormous efforts of Dr. Bendavid and Dr. Chevrel and their co-organizer, Shelborne Wilkes. As a result 450 participants attended. The following presentations were of particular interest and are reviewed in brief.

Controversy arrived early; discussion about the possible carcinogenesis of prosthetic mesh dominated the initial presentations. It was, however, acknowledged by all that there have been no reported connective tissue tumors in humans, after 50 years of mesh use. Therefore laboratory experimental results have never impacted patient care to date and discussants strongly debated the appropriateness of this concern. Mesh, by enlarge, is used for recurrence risk but a selective approach especially in young patients was advocated by Nyhus and Schumpelick. Schumpelick sited his
experience with a 40% incidence of postoperative pain after mesh repairs of a ventral hernia.

Co-authors with Chevrel reported their experience with a tension free non-mesh procedure with a recurrence incidence similar to the Shouldice repair. O’Dwyer raised the concern about an 8.7% incidence of postoperative neuralgia secondary to mesh and quality of life issues after herniorrhaphy. He cited only a 50-60% improvement in quality of life after various forms of herniorrhaphy and had 43 patients with severe chronic pain after 880 herniorrhaphies. Other presentations concerning postoperative pain prevention, treatment and etiology were given.

Dr. Robert Fitzgibbons described his multi-institutional randomized prospective study on watchful waiting versus herniorrhaphy in asymptomatic patients. He quoted literature showing that the incidence of hernia accidents (strangulation, bowel obstruction or incarceration) is from 0.272 to 0.037% depending on patient age, the primary issues being postoperative pain and mortality. Study results are awaited. In an interesting and related presentation Palot described his experience with 236 strangulated groin hernias. They found that femoral hernias were 10 times more common in this setting and that the mortality rate was 39% if bowel resection was required. They advised that a prosthesis not be used for emergent inguinal hernia repairs.

Nilson and Zollinger in separate presentations described hernia registries and results that have assisted in improving quality of care and cost effectiveness. With time the reoperative rate did not change in the Scandinavian experience and the recurrence rate of traditional repair was twice that of the Lichtenstein and laparoscopic TAPP repair.

The status of laparoscopic hiatal hernia repair and recurrence was reviewed. Early follow-up suggests that the laparoscopic approach is more prone to hernia recurrence. Established and possible reasons for this were discussed. The proven reasons include surgeon inexperience, postoperative vomiting and extreme intra-abdominal pressure secondary to weight lifting, car accidents and falls. There are numerous other theoretical reasons including the short esophagus, the predictors of which were discussed. Laparoscopic techniques for mesh repair have been worked out but they are, in general, poorly accepted because of the fear of erosion and fistula formation to the adjacent esophagus. Dr. Phillips discussed his experience with mesh repair and their initial satisfactory results. Further investigation into bio-compatible prostheses was encouraged.

An interesting discussion concerning wound dehiscence by D van Geldere showed that the incidence has not declined despite excellent clinical and experimental data that establishes the efficacy of continuous suture with at least a 4:1 ratio of suture length to wound length. Surgeon noncompliance to protocol in 15 wound disruptions from a prospective clinical study of 2488 wound closures was the predominant cause.

Intraperitoneal prosthetic placement for ventral hernias, recurrent or non-recurrent, was advocated in 5 separate presentations. The open and laparoscopic approaches were equally successful, in terms of recurrence rate. A dual mesh or simply a PTFE patch was utilized. In a series reported by Voeller 407 patients undergoing a laparoscopic retrorectus prosthetic repair experienced a recurrence rate of just 3.4% at 2 1/2 year follow-up. A variety of techniques for umbilical hernia repair were reported in 3 separate series. The long-term follow-up of umbilical hernia repairs has been relatively absent from the literature and the 3 series mentioned are a welcome addition. Kingsnorth et al reported a large series over a 5-year period with a significant increase in ambulatory umbilical hernia repair. Finally in two reports on pliable mesh the benefits of patient comfort and easy introduction were described for ventral and inguinal hernia repair.

Mobility, tensile strength, elasticity, deformation and bursting strength of the abdominal wall was separately studied by Schumpelick and Chevrel in an attempt to determine the ideal characteristics and positioning of prostheses for ventral hernia repair. Their scientific approach will undoubtedly advance the hernia repair with time.

Prosthesis infection was discussed at length. Bohnen stated that the incidence of mesh infection is greater with ventral hernia repair than inguinal herniorrhaphy but the benefit of prophylactic antibiotics remains controversial. DeBord advocates an intraperitoneal placement of mesh because it decreases fascial section and may therefore reduce infection rates. He advocated absorbable mesh in infected wounds. Flament encourages avoidance of nonabsorbable mesh and primary suture with relaxing incision and absorbable mesh augmentation. Other surgeons such as Mandala of Palermo (Italy) and Stoppa concluded that nonabsorbable mesh should not be routinely used in situations where sepsis is inevitable. Stoppa advised that « non-absorbable mesh is appropriate in a setting of sepsis when ; 1) the surgeon is experienced, 2) minimal patient co-morbidities exist, 3) the organism is identifiable and 4) there is an obvious risk for recurrence if a non-prosthetic repair is used. » All agree that ePTFE mesh is to be avoided when sepsis is suspected or proven.

A real time method of measuring respiratory mechanics in relation to abdominal pressure was presented by Munegato and colleagues from Padua (Italy). This intraoperative assessment utilizes intra-tracheal and intra-esophageal pressure to calculate at the bedside the compliance of the total respiratory system and therefore allows the surgeon to adjust the size of the mesh closure. This can prevent excessive intra-abdominal pressure and in turn excessive work of breathing.

Scientific session

Pregnancy and hernia repair were discussed in two separate presentations. Abrahamson described his shoelace technique that withstands the pressures of pregnancy as shown in 27 women who gave birth to 41 full-term babies following repair of an anterior abdominal wall hernia. The repair provides room for abdominal expansion. Bocchi follo-