Surgical Cornucopia
Pot pourri

A surgical sabbatical in France

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Sabbatical leave is a privilege that few surgeons use. Discontinuing one's practice for an extended period risks loss of referrals and financial hardship. However, the benefits of taking time to "retool and recharge" can be substantial in the long term, and "burnout" can be avoided. A planned change in hospital location and focus of my surgical practice offered me a window of opportunity to pursue a year of additional training in hepatobiliary surgery. I managed to obtain a position as *professeur associé* with Bernard Launois at the Hôpital Pontchaillou in Rennes, France. The Ministry of Education in France offers 15 such positions annually. These are designed to allow foreign doctors to study in France for 1 year, ostensibly to promote the exchange of scientific information.

Surgical education

From Paré to Lortat-Jacob, the French have a rich surgical heritage. Many modern surgical innovations have a French origin, including laparoscopic cholecystectomy and segmental liver resection. Standards of surgical care are high throughout the country, and surgeons maintain a position of high regard, even prestige, in French society. Surgery in France has evolved in an innovative climate, relatively free of "English" influence. This has resulted in the development of a unique attitude and approach to surgery and surgical education.

French surgical teaching units are structured according to the vision of the professor or *chef de service* at each university hospital. Each unit employs just a few professors (112 general surgical professors for the whole of France). The *chef de service* manages the entire unit and is responsible for all education, surgery and patient care issues. This professor decides what surgery is done and who does it. At the Hôpital Pontchaillou, a daily meeting at 1800 was used to discuss the next day's surgery, review ward problems and provide clinical teaching.

Surgical residency, known as internship in France, lasts 5 years and is followed by several years as *chef de clinique*. The surgical interns do 6-month rotations, during which they are responsible for all patient care and take first call for emergencies. Some rotations are taken at regional community hospitals. The interns assist the professors and *chefs de clinique* in surgery but are rarely allowed to perform procedures. The *chef de clinique* is somewhere between our senior resident and junior staff surgeon postions. These surgeons perform a large volume of surgery independently and take all emergency on-call cases. The professor continues to oversee their work and offer assistance when necessary. Courses are provided throughout the training program on the various theoretical and practical aspects of surgery.

Undergraduate medical education in France is structured somewhat differently from that in Canada. Students enter the 6-year medical school program directly from high school (*lycée*). There were 800 students in the first-year class at the Université de Rennes, but only 75 were promoted to the second year, and most of these will graduate. During the last 4 years of medical school, the students work on the wards in the morning with the interns and attend class in the afternoon. At the Hôpital Pontchaillou it was unusual to find them observing in the operating room. Students who wish to pursue a career in surgery must pass a competitive examination in their sixth year of study.

Hospital equipment

Reduced state funding for medical services is just beginning in France. As a result, the surgical units at the Hôpital Pontchaillou seemed lavish by Canadian standards. The service of 5 general surgeons (2 professors and 3 *chefs de clinique*) had 4 dedicated operating rooms that were staffed separately from other operating suites in the hospital. Surgery was booked for the morning only, usually 1 case. Fitting in emergency cases or reschedul-

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ing cases was generally not a problem. Transplantation surgery was often postponed to the daytime hours. There was no pressure for hospital beds, and patients were admitted the day before their operation for work-up by the interns for presentation at the evening meeting. Patients who underwent hernia repairs often stayed several days in the hospital. Same day discharge was rare. New equipment was brought in on a regular basis and large numbers of disposable trocars and other instruments were used for laparoscopic procedures.

SURGERY

At the hospital, surgical technique stressed precision. Procedures were always unhurried and tissue was handled gently. The surgeons used fine (5-0) monofilament sutures in most circumstances, and in the technique for bowel anastomosis all layers of bowel were approximated except the mucosa; the anastomosis was fast, effective and watertight. Results were excellent with very little postoperative morbidity or mortality.

The surgeons at the hospital were very aggressive with resections for both hepatic and pancreatic tumours. Extensive resections of the head of the pancreas that included the portal vein and repeat liver resections for hepatocellular carcinoma were not uncommon. Extended lymph-node dissections formed a highly regulated part of most cancer procedures. Paraaortic and celiac nodes that most Canadian surgeons would leave were routinely removed en bloc. The surgeons used their comprehensive understanding of intrahepatic segmental liver anatomy during most liver resections. The "glissonian sheath" approach to liver surgery, popularized by Professor Launois, was used routinely. This technique involves encircling and exteriorizing the hepatic hilum by using a posterior incision in the caudate process, hence its name — the "posterior approach." Once the hilum has been removed, the glissonian sheaths to selected sectors or hepatic segments can be divided, depending on the area to be removed. Intraoperative ultrasonography was used to define the liver anatomy and plan the resection.

Many of the other standard approaches used at Hôpital Pontchaillou were different from those used in Canada. For instance, investigation of pancreatic masses included magnetic resonance imaging and cholangiography followed by endoscopic ultrasonography. Patients rarely underwent endoscopic cholangiography, and stents were never placed preoperatively. Instead gastroenterologists were found excising hemorrhoids and fissures. During common-bile-duct explorations, the duct was always opened transversly and closed primarily, with a drain in the cystic duct. A T-tube was rarely used. Surgery on ducts or cysts of the biliary tract and pancreas always included "on-table" cholangiography. These radiographs immediately oriented the surgeon as to his position in the dissection and demonstrated the anatomy. Diverticulitis was treated with resection, primary anastomoses and a protecting colostomy or ileostomy. The surgeons often protected their bowel anastomoses with diverting stomas. Other differences included a unique standing chair for operating and liberal use of retracting instruments. Rarely was a hand placed in the operative field to aid in exposure; a malleable or sponge stick retractor was used instead. Wound closure involved an elaborate ritual of changing gloves and drapes.

Advanced laparoscopic procedures were common. Several regional surgeons had extensive experience with laparoscopic colonic resections (more than 500 cases) and common-bile-duct explorations (more than 50 cases). A laparoscopic procedure was standard for elective colectomy to treat diverticulitis. Laparoscopic appendectomy and Nissen fundoplication were also standard procedures. A completely different approach to laparoscopic cholecystectomy was used. Operators positioned themselves between their patients' legs and did not grasp the gallbladder but simply pushed it in a superior direction along with the liver. Operative cholangiography was used routinely for this procedure; indeed, throughout France it would be considered malpractice if this was not done. Comprehensive training and ac-

FIG. 1. Laennec Pavillion of the Hôpital Pontchaillou, Rennes, France.

creditation in laparoscopic surgery was available to most interns. A very effective retractor system with large blades to lift and separate the incision and costal margin was used. This, combined with the fact that French patients are much less obese than their Canadian counterparts made surgical exposure impressive. Only 1 surgical assistant was ever used and the scrub nurse (instrumentist) often participated as the "third pair of hands." These nurses were superb: they almost exclusively assisted 1 or 2 surgeons and therefore had a comprehensive understanding of the procedures.

Standardization was the route to efficiency at the hospital. Only 4 different types of sutures were used and they were the same for the whole digestive surgery system (2-0 Vicryl ties, 5-0 Prolene sutures for pancreas and vascular control, 5-0 polydioxanone for the bile duct and no. 1 polydioxanone double stranded suture for closure). Diversity of other surgical instruments was kept to a minimum. Postoperative care was also standardized, and no postoperative orders were written. The anesthetist adjusted the amount of intravenous fluids and analgesics postoperatively and did daily rounds on all patients.

SURGICAL RESEARCH

Surgical research in France is well developed. The French Surgical Association (Association Français de Chirurgie) sponsors a number of clinical trials and conducts countrywide reviews. Most clinical research is presented at local meetings. The *Journée* meeting in Rennes was an unparalleled celebration of food, wine and science. All the interns and *chefs de clinique* were required to present research projects at this meeting and this could involve reviews of up to 1500 patients. The digestive surgery unit participated in a number of international randomized trials and several of the professors managed laboratories in addition to their clinical loads. Advanced research training is available for any *chef de clinique* who wishes to pursue an academic career.

SUMMARY

During my stay in France I had the unique opportunity to meet surgical professors from all over the world and made many friends and contacts in the field of hepatobiliary surgery. Brittany is a beautiful province of France, having unique way of life and approach to social and societal problems. The cultural enrichment that I received from my year there will last a lifetime, as will the many fond memories of the people, the culinary delights and the spectacular seashore.■