

GANDER ABSTRACT

ADVERSE EVENTS ASSOCIATED WITH LAPAROSCOPY VS LAPROTOMY IN THE TREATMENT OF ENDOMETRIAL CANCER

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GYNECOLOGY**

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**Barnett, J C; Havrilesky, L J; Bondurant, A E; Fleming, N D; Lee, PS;
et al**

This retrospective clinical records study evaluated the complications and surgical parameters associated with 107 women who were treated laparoscopically and 269 treated via a laparotomy for endometrial cancer at a single teaching medical institution. Body mass indices were matched for the two cohorts.

Although complication rates were percentage wise similar (37% for the laparoscopic cohort and 43% for the laparotomy cohort), the laparotomy group experienced more cellulitis (16% vs 7%), while the laparoscopy group had higher rates of peripheral nerve deficits (5% vs 0%) and lymphedema (7% vs 1%). Operative times were longer with the laparoscopy cohort, while length of hospital stays and blood loss were greater with laparotomy cohort.

CONCLUSION:

“Laparoscopy was associated with decreased rates of surgical site infections but had an increased risk of peripheral sensory nerve deficits and lymphedema when compared with laparotomy.”

GANDER REVIEW

BONE GRAFTING IN SURGERY ABOUT THE FOOT AND ANKLE: INDICATIONS AND TECHNIQUES

JOURNAL OF THE AAOS

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Timothy Fitzgibbons, Michael Hawks, Scott McMullen, and David Inda

This literature review article describes various alternative sources for bone grafting in procedures about the foot and ankle. Autologous cancellous and cortico-cancellous bone from the iliac crest (ICBG) has been the historical “gold standard” for bone grafting. Although ICBG is an abundant source of cortical and cancellous material,; concerns regarding short term pain and long term complications associated with ICBG, has prompted surgeons to consider other sources.

Bone healing involves several responses to local application of “osteobiologics”, including: osteoconductivity (bone bridging or scaffolding), osteoinduction (mitogenesis of undifferentiated mesenchymal cell stimulation to produce osteoid), & osteoproliferation (transfer of osteoblasts or osteoblast precursors with graft material). Autogenous cancellous bone from all sources is osteoconductive and osteoproliferative. Fusion rates in foot and ankle procedures are consistently reported to be 95% or greater (in foot and ankle procedures) with all sources of autologous cancellous bone grafting (e.g. IVBG, proximal tibia, distal tibia, calcaneous, and greater trochanter). Osteoinduction is associated with various bone morphogenic proteins exposed (with HCl acid) through demineralization of bone matrix (DBM) or with purified bone morphogenetic proteins (e.g. BMP-2).

Each autologous regional donor site has its specific advantages (amount of available bone, ease of acquisition, complication rates, etc.). This review cites literature findings characterizing these attributes for each donor site. The proximal tibia site provides comparable bone volume (5.4 ml v. 6.0 ml of compressed cancellous bone) and quality to that of ICBG. It demonstrates very low complication rates (1.3% - 2.7% minor paresthesias). Post operative function was characterized as full weight bearing without increased risk for tibial plateau fracture. Cancellous bone is harvested through either a medial or lateral oval cortical defect.

GANDER REVIEW

POSTLAMINECTOMY OSTEOPONTIN EXPRESSION AND ASSOCIATED NEUROPHYSIOLOGICAL FINDINGS IN RAT PERIDURAL SCAR MODEL

SPINE

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Greforz Brzezicki, Roman Jankowski, Tomasz Blok, et al

This prospective controlled animal experimental study evaluated the presence of Osteopontin in specific spinal column tissues as well as the extent of vascularization, scarring, and neurophysiologic response following a laminectomy model in Wistar rats. Osteopontin (OPN) is a protein associated with inflammatory processes including wound healing and fibrosis. OPN expression by neurons of the central nervous system and the dorsal root ganglion (DRG) is associated with ischemia and injury. “The unique regulatory role of OPN in wound healing, fibrotic responses, and pathologic processes in peripheral nerve system and CNS might represent a possible mechanism linking postsurgical epidural scar formation and DRG responses, resulting in potential recurrent radicular symptoms.”

In this study fifteen rats underwent L5 laminectomies and ten control animals underwent superficial exposure of the L5 lamina. Quantification of scar formation, histologic evaluation (including immunocytochemistry for OPN and CD31 for vascularity), and electrophysiologic evaluation with SSEP recordings was utilized to determine variances between experimental and control groups.

The laminectomized rats had significant up regulation of OPN in the meninges, arachnoid adhesions, tissue surrounding the DRG in the intervertebral foramen, as well as neurons in the DRG. The study found no correlation between epidural scarring (quantified by He score) and OPN expression in the scar tissue (quantified by immunocytochemistry). There was however significant correlation between OPN expression in neurons of the DRG and epidural scarring, epidural OPN immunoreactivity, and vascularity of the scar tissue at six weeks postoperative. Six weeks postlaminectomy there was a significant loss of SSEP amplitudes versus control animals.

GANDER REVIEW

Routine Adrenalectomy in Patients with Locally Advanced Renal Cell Cancer Does Not Offer Oncologic Benefit and Places a Significant Portion of Patients at Risk for an Asynchronous Metastasis in a Solitary Adrenal Gland

European Urology
April 2011

**Weight CJ; Kim SP; Lohse CM; Cheville JC; Thompson RH;
Boorjian SA; Leibovich BC**

This study evaluated the long term effects of ipsilateral adrenalectomy in patients with renal cell carcinoma (RCC) among patients treated at the Mayo Clinic from 1970 to 2006. Among the 4018 patients treated for RCC, 3107 had radical nephrectomy (RN) and 911 had a partial nephrectomy (PN). Risk for asynchronous adrenal metastasis and cancer specific survival was compared between those who underwent concomitant ipsilateral adrenalectomy (n=1541) and those who did not (n=2477).

‘Median postoperative follow-up among those still alive was 8.2 yr. Synchronous ipsilateral adrenal involvement was rare (n=88; 2.2%). Ipsilateral adrenalectomy at the time of nephrectomy did not lower the risk of subsequent adrenal metastasis (hazard ratio [HR]: 0.96; 95% confidence interval [CI], 0.64-1.42) or improve CSS (HR: 1.08; 95% CI, 0.95-1.22). The development of asynchronous adrenal metastasis occurred in 147 patients (3.7%) at a median of 3.7 yr (IQR: 1.2-7.7) after initial surgery. The risk of developing an ipsilateral versus a contralateral asynchronous adrenal metastasis was equivalent at 10 yr in those who did not undergo adrenalectomy at initial surgery.’ Routine adrenalectomy in patients with RCC is not recommended.

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“I told you this was going to be a very invasive surgery.”