

1:30 P.M. – 2:00 P.M.

RAPID FIRE SESSION I

PRESIDING: Tina R. Desai, MD

**RF1 An Illustrative Account of Vascular Injuries
Encountered During Lumbar Disk Surgery**

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Iatrogenic vascular injury occurring during lumbar disk surgery is an uncommon but well recognized complication creating a serious problem for a vascular surgeon. A unique perspective captured through photography, documents the experience of three cases encountered as well as the surrounding circumstances relevant to each case. This photographic record combined with the following text will aid in reconstructing each scenario in order for surgeons to have an opportunity to contemplate a plan of action prior to facing a similar dilemma in actuality.

Since the first description of lumbar disk surgery in 1934 by Mixter and Barr,¹ this technique has become a common treatment modality for disk herniation with approximately 200,000 procedures performed annually.² Shortly thereafter in 1945, the first description of a major vascular complication in form of an arteriovenous fistula following disk excision was reported by Linton and White.³

Today, the incidence of symptomatic vascular complications during intervertebral disk surgery ranges from 0.016 to 0.17%. This is correlated with a mortality rate ranging from 15 to 61%.⁴ The nature of vascular injuries incurred includes laceration, arteriovenous fistula and pseudoaneurysm. The presentation of these injuries can be subtle. Regardless of presentation, the mainstay of treatment for vascular injury during lumbar disk surgery in the peri-operative period is surgical. Therefore, the vascular surgeon must maintain an astute surgical posture towards any patient having suspected a vascular complication of lumbar disk surgery. As an aside, the medico-legal implications can carry a heavy financial burden for defendants named in suits. A review by Goodkin and Laska reports 21 cases involving vascular and visceral injuries and 9 resulting in favorable plaintiff judgment with an average reported amount of \$681,871.⁵

The authors present an illustrative account describing three cases of vascular injury encountered during lumbar disk surgery to increase awareness and preparedness among surgeons to potentiate proper management of prospective occurrences.

