

## UNPLANNED OPERATIVE VASCULAR CONSULTATIONS IN NONVASCULAR SURGICAL PROCEDURES

Wael Elsayed Shaalan MD, Hassan Lotfy Ibrahim MD, Sameh Moustafa Elsayed MD, Youssef Ahmed Anwar Ramadan  
Vascular surgery unit, Department of surgery, Faculty of Medicine, Alexandria University, Alexandria, Egypt

### Introduction

Vascular surgeons are an integral component of the surgical services and must be available to support the primary surgeon when needed in cases of complex anatomic exposure, uncontrollable bleeding, and restoration of blood flow for both elective and emergency operative cases. Unfortunately, many requests for vascular surgeons occur as an unplanned emergency intraoperative consultation with the assumption underlying these requests is that vascular surgeons are ready and available at a moment's notice (ie, 24/7). Administrators, other medical providers, hospital systems, and modern health care in general underappreciate the value and necessity of vascular surgery services in this context. In addition, the contribution to patient safety of readily available vascular surgery services to a given hospital has rarely been quantified or reported. Orthopedics, Obstetrics and Urology are the departments that are associated with highest rates of intraoperative vascular consultations especially the unplanned emergency consultations either for repair of vascular injury or for bleeding control. Before the emergence of vascular surgery as a subspecialty, all general surgeons were either trained in vascular methods or had exposure to vascular surgery during their rotations. The need for a second surgeon with these unique skills became more evident with the new generation of the specialty surgeons

### Aim of the work

Evaluate assistance provided during unplanned intraoperative consultations as regards: Types of consultation and vascular intervention, prevalence, management and outcomes including morbidity and mortality

### Subjects

#### Inclusion criteria

Emergency notification for: Bleeding control, Restoration of blood flow, Repair of vascular injury

#### Exclusion criteria

Planned operative notifications, Unplanned notifications with no need for vascular intervention

### Methods

A retrospective analysis of intraoperative vascular surgery consultations from January 1, 2018, to December 31, 2019, was evaluated. Consultations included from surgical services as general surgery, orthopedic surgery, neurosurgery, obstetrics and gynecology, urology, cardiothoracic surgery, interventional radiology and after cardiological interventions.

Data collected include:

- 1) History: Demographics: Age & sex, Comorbidities: IHD, HTN and DM and Indication for the primary operation.
- 2) Preoperative investigations: Done and missing investigations by which unplanned consultation could have been avoided.
- 3) Operative data: Reason for the vascular surgery operative consultation: Bleeding control, Restoration of blood flow, Repair of vascular injury.
- 4) Post-operative data: Recovery, Early postoperative outcome and Need for ICU admission.

### Results

Table (1): Frequency of vascular notification (n = 59)

Specialty	No. (%)
General surgery	10(16.9)
Cardiothoracic surgery	2(3.4)
Urology	11(18.6)
Cardiology	2(3.4)
Orthopedic	5(8.5)
Neurosurgery	4(6.8)
Obstetrics and Gynecology	25(42.4)

### Results

Table (2): Relation between primary procedure setting and requesting specialty

specialty	Primary procedure setting		p
	Elective (n = 30)	Emergency (n = 29)	
	No. (%)	No. (%)	
General surgery	4(13.3)	6(20.7)	0.506
Cardiothoracic surgery	1(3.3)	1(3.4)	1.000
Urology	9(30)	2(6.9)	0.023*
Cardiology	2(6.7)	0	0.492
Orthopedic	4(13.3)	1(3.4)	0.353
Neurosurgery	4(13.3)	0	0.112
Obstetrics and Gynecology	6(20)	19(65.5)	<0.001*

p: p value for association between different categories

\*: Statistically significant at  $p \leq 0.05$

### Conclusions

Vascular surgery is an important corner stone in any tertiary facility, Specialties like obstetrics and gynecology, urology, orthopedics, neurosurgery and general surgery should have an integrated vascular training program in their residency, Maintaining a high level of suspicion by other specialties in consulting vascular surgeons preoperatively to avoid unforeseen intraoperative vascular events.