Abstract: There are 2087 M.S (General Surgery) postgraduate students getting admitted in 207 medical colleges across India of which only 12-15% of Institutions have existing vascular services available in their affiliated hospitals. As a part of training, postgraduate students are posted to different specialties on rotation. Of all the specialties, Vascular surgery postings contributes to bringing in fundamental changes in the training of a M.S(General Surgery) postgraduate as evidenced by The Department of Vascular surgery at Thanjavur Medical College Hospital since its inception in September 2015. Starting from clinical history to exposure to Endovascular suite, at every level upto the attitudinal scale expected of a surgeon, fundamental changes are bound to be noticed in a student with exposure to Vascular Surgery. With rapid changes occurring in the academic horizon, wherein surgical diseases are coming under the purview of Needle based interventions being performed more and more by non-surgical specialists, M.S (General Surgery) curriculum is in an urgent need for restructuring.

Introduction: India is in the grip of an NCD epidemic with a burdensome increase in the incidence of life-style related diseases and with the dubious distinction of being the global diabetic capital. As a result, the number of patients in need of vascular care are on a perpetual increase against the backdrop of a limited vascular care network. Patients with chronic arterial ischemia, venous problems, diabetic foot syndrome, vascular malformations and emergencies like acute ischemia and vascular trauma constitute more than 20 to 30 % of all admissions in a general surgical unit at any point of time. The centers where vascular services are available are confined to predominantly state capitals and metropolis reflecting a gross maldistribution whereas patients with vascular problems are found to be of general distribution cutting across all social strata attendant with an increasing incidence amongst people from low socioeconomic background and rural livelihood. This offers great scope for training M.S General Surgery post graduate students in Vascular Surgery, but the lack of vascular surgery teaching faculty blunts the opportunity.

The purpose of this article is to showcase the fundamental potential of vascular surgery in complementing general surgery training needs to be internalized by the teaching faculty in general surgery. changes that can be effected in General Surgery training as observed amongst M.S.(General Surgery) Postgraduate students by a comparative study of students admitted prior to and after the commencement of The Department of Vascular Surgery at Thanjavur Medical College Hospital

KEYWORDS: postgraduate training, vascular services, curriculum.

MATERIALS AND METHODS: This observational study has been carried out collaboratively by The Department of Vascular surgery and The Department of General Surgery, Thanjavur Medical College Hospital, Thanjavur from September 2015 to February 2017. Datas were obtained from the postgraduates who completed the vascular training in Dept of vascular surgery, Thanjavur Medical College Hospital. Their experience on clinical evaluation and management as a trainee before and after Vascular Surgery training were obtained.

OBSERVATION:

<table>
<thead>
<tr>
<th>S.No</th>
<th>DISEASE</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>HOW?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arterial ischemia</td>
<td>Branded most patients as TAO</td>
<td>Learn to distinguish between TAO and AOD</td>
<td>By applying diagnostic criteria based on clinical examination.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natures to the prescription of Digoxin</td>
<td>Early specialization has led to the formulation of protocol</td>
<td>By supervised instruction.</td>
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<tr>
<td></td>
<td></td>
<td>Aspirin and statins were not always prescribed</td>
<td>Redefine prescription</td>
<td>Bed side teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unfamiliar with CT Angiogram</td>
<td>Becoming familiar with CT angiogram has facilitated better understanding of the vascular segments</td>
<td>Bed side diagnostic evaluation &amp; treatment planning session.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mortgages seemed end of the road cases and lost hope</td>
<td>Never condone the concept of revascularisation has offered light of hope</td>
<td>Vascular teaching</td>
</tr>
</tbody>
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DIscussion:
The current data furnished by MCI quotes only 15 % of medical colleges where vascular services are available run either as an independent department or under the cover of Cardiovascular and Thoracic Surgery departments. This translates into only 12 % of the total number of M.S (General surgery) postgraduates joining the course every year getting any basic exposure to the fundamentals of vascular science. Against the stark reality of very limited number of qualified Vascular Surgeons, it calls for an urgent need to train General Surgeons in Vascular Science if at all the societal need for Vascular care is aimed to be met. Further the practice of General Surgery is going through a transitional phase from the once big incision’ era of open surgery through the recent era of minimal access surgery to the current era of needle based addressal of surgical diseases viz Endovascular Interventions, on its journey towards disease prevention by gene mapping and gene modulation, courtesy the evolution in molecular biology. As a result certain diseases which were once under the domain of General Surgeons have started drifting to other specialties. To quote an example, the incidence of varicose veins is being projected to be around 30 % in the general population in the country1. We have non-surgical specialists viz cardiologist, radiologist and dermatologists addressing varicose veins by needle based addressal in the form of radiofrequency ablation, whereas M.S (General surgery) postgraduates are found to be unfamiliar with this methodology. This need to be set right and requisite training to General Surgery postgraduates should be ensured in this regard. In such a clinical scenario, exposure to Vascular Science to all M.S (General Surgery) trainees assumes importance beyond questioning.

In Canada, the Royal College of Physicians and Surgeons (RCPSC) sets objectives for specialty training. In the 1996 objectives, the RCPSC required that every general surgery resident attain “sufficient knowledge and judgment to manage lesions of the vascular system”; the RCPSC modified the general surgery training objectives in this regards1. Vascular surgery is traditionally considered a component of general surgery. The American Board of Surgery (ABS) considers vascular surgery to be one of the nine “essential content areas” of general surgery. According to the ABS, a general surgery trainee is expected to have “knowledge and experience related to the diagnosis ... management, including management of complications, in the essential content areas”. Vascular Surgery best exemplifies the definition “A Surgeon is an operating physician”. Though it is a fundamental requirement of any clinical science, history taking with vascular training becomes very impressionable to the student’s grasp and gains focus. With Vascular Surgery training history can never be wanting. It is said that Surgery is all about perseverance will never be lacking.

The results of this study raise many questions. Will there be enough trained specialists to deal with the burden of vascular disease? Should the structure of vascular training be changed, because there is much in common with general surgery. Should Indian general surgery programs make more of an effort to include vascular training? Will a program “Teach the Teacher” aimed at General Surgery faculty to train in the basics of Vascular Surgery Bridge the wide gap? The implications of these questions should be the focus of further research.

CONCLUSION:

Darkness shrouds the General Surgery curriculum with regards to Vascular Surgery. 60 -80 % of M.S Post Graduates in India pass out without any basic exposure to Vascular Science2. At present, vascular specialists meet only 20% of the societal need in the backdrop of limited availability of vascular surgeons. Further the corporate establishments housing vascular services are beyond the economic reach of the majority of vascular patients resulting in an increased dependence on teaching institutions and government medical colleges for vascular services. The current scenario calls for an urgent need to restructure the M.S (General Surgery) curriculum. Vascular Surgery postings should be made mandatory for all M.S Postgraduate students with exposure to Cath Lab/Mini Cath Lab environment. Basic skill imparting in vascular procedures should be ensured to tackle vascular emergencies.

REFERENCES:
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3) Objectives of training and specialty training requirements in general surgery, The Royal College of Physicians and Surgeons of Canada, Ottawa, Ont, Canada (2002)