



LYMPHATIC PATTERNS IN HUMAN PRIMARY AND SECONDARY LIVER TUMOURS

Supervisors: Prof C Christophi and Dr V Muralidharan

Contact details: Ph: 9496 3670 or 9496 3574

Email: surgery-armc@unimelb.edu.au and muv@unimelb.edu.au

Colorectal cancer (CRC) is the second most frequent malignancy in Australia, with over 12,000 new cases diagnosed, resulting in over 4,000 deaths annually. The most significant cause of death in these patients is the development of liver metastases. The lymphatic system has long been implicated in the progression of metastatic spread of tumours throughout the body. It has been recently documented that particular intra, peri, and juxta-tumoural lymphatics may play a role in mediating and advancing the spread of invasive tumours. However, the

development and function of lymphatics within liver metastases is not well understood. The potential role these may play in the intra and extra hepatic spread of the disease is unknown. Recent studies have identified specific receptors present on lymphatics, allowing detailed descriptions of lymphatic patterns within tumours. This study aims to investigate the presence of lymphatics in the normal human liver and cirrhotic liver as well as in primary and secondary liver tumours removed at surgical resection.

Techniques:

Histopathology
Cancer patient samples
Immunohistochemistry
Light microscopy
Quantitative stereology

Projects

1. Investigation of the presence of lymphatics in normal human liver, cirrhotic liver and primary and secondary liver tumours

Publications:

Nikfarjam M, Muralidharan V, Malcontenti-Wilson C, Christophi C. Scanning electron microscopy study of the blood supply of human colorectal liver metastases. *Eur J Surg Oncol.* 2003 Dec; 29(10): 856-61.

Cherk, Nikfarjam M, Christophi C. Retroperitoneal Lymphangioma. *Asian Journal of Surgery* 2006 Jan;29(1):51-4