

GRADUATE STUDENT PRESENTATIONS

Factors And Biomarkers Of Significance In Distant Metastasis Of Breast Phyllodes Tumour

MONDAY
20 NOVEMBER 2017

2.30PM TO 3.00 PM

MD10
SEMINAR RM (LEVEL 2)
ANATOMY DEPT**Ms Valerie Koh Cui Yun**Graduate Student
Department of Anatomy
Yong Loo Lin School of Medicine

Phyllodes tumours (PTs) of the breast are rare fibroepithelial tumours accounting for 0.3 – 1.0% of all primary breast tumours. Most PTs are benign and generally well managed with surgery. However, malignant PTs, and occasionally borderline PTs, can display clinically aggressive behaviour by metastasizing to distant organs. Although distant metastasis is rare, the prognosis of patients with metastasis is dismal as many are unresponsive to standard chemotherapy and the risk of death is high. In our study, we aim to investigate the different factors that may correlate to the development of distant metastasis in patients with PTs, and also their overall survival. Currently, our study showed that tumour size and presence of malignant heterologous elements predicted metastasis in malignant PTs. Further work needs to be done to determine if protein biomarkers and genomic aberrations are able to additionally refine metastatic risk in patients with malignant PTs.

Role of Phosphoglycerate Dehydrogenase in Breast Cancer

MONDAY
20 NOVEMBER 2017

3.00PM TO 3.30PM

MD10
SEMINAR RM (LEVEL 2)
ANATOMY DEPT**Dr Chandrika Muthukrishnan**Graduate Student
Department of Anatomy
Yong Loo Lin School of Medicine

The enzyme Phosphoglycerate dehydrogenase acts as a pathbreaking oncoprotein in the pathogenesis of breast cancer. It supports cell growth through the serine production pathway and replenishes alpha ketoglutarate enhancing cancer cell proliferation. PHGDH poses as a biomarker as majority of triple negative breast tumours exhibited overexpression of this protein. Studies show that Phosphoglycerate dehydrogenase knockdown by sh RNAs causes decline in serine levels leading to reduced cell proliferation. The identification of a Phosphoglycerate dehydrogenase inhibitor may be a harbinger to future anticancer therapy as it is so perspicuous that PHGDH suppression abridge the availability of glycine and glutamine for the cancer cells thereby causing tumour regression.