**Methods:** Ten HCCs, which were diagnosed by biopsy, treated by TACE and consequently resected and 36 HCCs without TACE, biopsy and resection matched were selected from hepatic resections between 2001 and 2014 at Severance Hospital. Total necrotic HCCs after TACE were excluded. Immunohistochemistry for stemness markers (K19, EpCAM and CD133) and hypoxic marker (CA-IX) were performed.
**Results:** The expression rate of K19, EpCAM, CD133 and CA-IX were well matched between biopsied and resected HCCs with specificity ranging from 82 to 100%. K19 expression was well correlated with that of CA-IX. Biopsied HCCs, done before any treatment showed no difference in the incidence or extent of expression of stemness markers and CA-IX between TACE and non-TACE groups. TACE treated/resected HCCs showed higher incidence of EpCAM expression compared to those without ($p$=0.033), whereas the incidence of K19, CD133 and CA-IX expression showed no significant difference between two groups. The extent of EpCAM and K19 expressing tumor cells increased in TACE treated/resected HCCs compared to those without ($p$=0.028 and $p$=0.049). K19 and CAIX positive patients on biopsied HCCs of both groups showed lower survival rate ($p$=0.013 and $p$=0.008, respectively).
**Conclusions:** It is considered that K19 expression is related to CAIX, and hypoxic microenvironment induced by TACE increases the extent of K19 expressing tumor cells rather than converting K19-negative HCC to K19-positive HCC. Therefore, checking K19 and CA-IX expression on HCC biopsy before TACE is suggested to be good markers predicting HCC outcome.

## 88. CLINICOPATHOLOGIC AND PROGNOSTIC SIGNIFICANCES OF miRNAlet-7α EXPRESSION AND ITS ASSOCIATION WITH AR STATUS IN BREAST CARCINOMAS

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**Background:** MiRNAlet-7a as a member of the let-7 family, has been widely considered as a tumor suppressor because the let-7a is down-regulated in many carcinoma progression. Androgen receptor (AR) was expressed in breast cancer as a significant prognostic factor (including our data).
**Aims:** To analyze the associations of miRNAlet-7a expression with the clinicopathologic characteristics and prognosis in different AR status.
**Methods:** One hundred sixty eight cases with invasive ductal carcinoma were randomly selected, the miRNAlet-7a expression was detected by *in-situ* hybridization, and the expression of AR, ER, and Ki67 were detected by immunohistoehemistry. These cases were divided into AR+ and AR- groups, and the results were analyzed by statistics.
**Results:** The positive rate of miRNAlet-7a expression was 70.2%. There were significant differences in the deferent grad and different AR status ($p$=0.002, 0.000). But, there was no significant difference in age, menstrual status, size, pTNM, node metastasis, ER, p53, ki67, HER2 (all $p$>0.05). Let-7a expression correlate positive with AR ($p$=0.000). In AR+ group, there was no significance found between the expression of miRNAlet-7a and clinicopathologic characteristics, in AR− group conversely, miRNAlet-7a was associated with histological grade ($p$=0.004). The let-7a expression was all associated with better disease-free survival ($p$=0.000) in the two groups, respectively. The multivariate-analysis showed it was a significant predictor of disease-free survival ($p$=0.000).
**Conclusions:** miRNAlet-7a may play important roles in the breast carcinomas of different AR status. It's as indicator of predicting prognosis and maybe a new therapeutic target.

## 89. PDL1 EXPRESSION IN TRIPLE-NEGATIVE BREAST CANCER IS ASSOCIATED WITH TUMOUR-INFILTRATING LYMPHOCYTES AND IMPROVED OUTCOME

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**Purpose:** Triple-negative breast cancer lacks expression of estrogen receptor, progesterone receptor and human epidermal growth factor receptor and patients generally have a poor outcome; there is a pressing need to identify more effective therapeutic strategies. Clinical trials targeting PD1/PDL1 in melanoma and non-small cell lung cancer have reported high response rates, and tumoural PDL1 expression has been suggested as a potential biomarker to enrich for patient response to these treatments. There is only very limited data to date reporting the expression of PDL1 in triple-negative breast cancer. This study characterises PDL1 expression patterns and tumour-infiltrating lymphocytes in primary triple-negative breast cancer.
**Methods:** PDL1 immunohistochemistry was performed on 163 primary triple-negative breast cancers and assessed in the tumour (membranous and cytoplasmic compartments) as well as immune cells in the stromal compartment. Tumour-infiltrating

lymphocytes were also assessed using a standard semi-quantitative method. Samples were considered PDL1 positive if ≥1% of cells showed PDL1 expression in any compartment.
**Results:** PDL1 expression was very common in triple-negative breast cancer, seen in 94.4% of assessable samples and was expressed in the tumour membranous (63.4%), cytoplasmic (77.6%) and stromal (92.5%) cellular compartments, with 22.1% of samples showing stromal immune cell PDL1 expression in the absence of tumoural PDL1 expression. There was a strong association between tumour-infiltrating lymphocytes and stromal PDL1 expression. While both PDL1 expression and tumour-infiltrating lymphocytes were associated with a better outcome, only tumour-infiltrating lymphocytes were independently prognostic.
**Conclusion:** While PDL1 expression is frequent in triple-negative breast cancer, only tumour-infiltrating lymphocytes were independently prognostic suggesting that this is a major driver of outcome in these tumors. However, given the high expression levels of putative biomarkers of response to immune checkpoint therapy, these data provide support for the further investigation of PD1/PDL1 targeted therapies in triple-negative breast cancer.

## 90. CONGENITAL HEART DEFECT: SHONE'S COMPLEX (CASE REPORT)

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**Background:** Shone's complex is a rare congenital heart disease consisting of multiple levels of left sided obstructive lesions including supravalvar mitral ring, parachute mitral valve, subaortic stenosis and coarctation of aorta and this is a very rare malformation and a very few cases have been reported in literature.[1] It is described by Shone in 1963.[2] The present case report describes a case of a complete form of Shone's complex that was detected in infants. In our country, there were only two cases diagnosed by autopsy informal literature.
**Case report:** A 2-month-old male infant was admitted to the State Central Third Hospital, Cardiac Surgery Department as a case of Shone's complex. He was born on the 30 April, 2014. He was diagnosed with Shone's complex by ultrasound a week before delivery. On examination, shortness of breath, peri-oral cyanosis reported as main complaints. Pulse rate was 130/min in upper limb, The BP was 80/40 mm Hg in the right upper limb. There was a long ejection systolic murmur (grade III/VI) at the aortic area which was conducted to the carotids. Based on the above findings, a provisional diagnosis of coarctation of aorta with left sided obstructive valvular lesions in a case of Shone's complex was made. Mongolian and Korean cardiac surgeons made a decision to do the operation. When the anesthesiologist inserted the endotracheal intubation, patient's breathing stopped. Intensive care doctors did the CPR procedure, there was no good result and the patient died.
On the autopsy, concentric hypertrophy of heart (90 g), thickness of left atrium like a cartilage, thickness of right ventricle wall until 1 cm, thickness of left ventricle wall until 1.5 cm, mitral valve parachute, a supravalvar mitral ring, coarctation of aorta (0.8 cm) were found.
On microscopic, elastofibrosis from of mitral valve parachute, hypertrophy of cardiomyocytes, dystrophy of internal organ were proved.
**Conclusion:** The patient had a rare congenital heart defect called Shone's complex, the cause of death was chronic heart failure, ventricular fibrillation.

**References**:
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## 91. IMMUNOHISTOCHEMICAL EXPRESSIONS OF P75, S100, PGP 9.5 AND C-KIT IN RESECTED BOWEL OF HIRCHSPRUNG'S DISEASE AND CORRELATION WITH POSTOPERATIVE COMPLICATION

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**Background:** Surgery is the mainstay treatment for Hirschsprung's disease (HD). Post-operative complications include enterocolitis, gastroenteritis and constipation. Previous studies had shown neuronal cell-related proteins' involvement in pathogenesis of HD. However, there is little data on the association of these markers and the post-operative outcome of the HD patients.
**Aim:** To study the association between neuronal markers in resected bowel and presence of post-operative complications in HD patients.
**Methods:** Ethical approval of this study was obtained from the institution's Ethics Committee. One hundred and forty four HD cases diagnosed in the Histopathology unit, Hospital Kuala Lumpur between the years 2002 until 2008 were reviewed. Of these, 87 cases had follow-up data available as other cases were referrals from other states in Malaysia and were followed-up elsewhere. Archival paraffin-embedded blocks of resected bowel tissues from these cases were retrieved and immunostained with primary antibodies for: p75, S100, c-kit and PGP 9.5. The amount of positively staining cells within the circular muscle of the muscularis propria was evaluated qualitatively using image analysis software. Results: 18 cases have been reported to develope post-operative complication, enterocolitis being the most common ($n$=14). p75, S100 and PGP 9.5 showed lower expressions in HD patients without post-operative complication compared to those with complications ($p$=0.04; $p$=0.03; $p$=0.02; respectively, Mann-Whitney test). While c-kit expression is higher in HD patients without post-operative complication compared to those with complications.
**Conclusion:** p75, S100, PGP 9.5 and c-kit are potential candidate markers for predicting postoperative complication in HD patients.