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**Background:** 42–77% of exudative pleural effusions are due to malignant diseases. This study aimed to assess the value of biochemical parameters of the pleural aspirate in predicting success of chemical pleurodesis in adults with malignant pleural effusion.

**Methods:** This prospective study included 30 adults with malignant pleural effusion diagnosed by clinical examination, chest CT scanning, and closed pleurocentesis. In patients with a mean age of  $60.4 \pm 7.8$  years, multiple sessions of closed pleurocentesis were carried out followed by insertion of an intercostal tube. The pleural aspirate was then sent for chemical analysis to detect glucose, pH, and lactate dehydrogenase (LDH). Pleurodesis was then done either by using tetracycline (group A), or bleomycin (group B). All patients were then followed up for success of the pleurodesis process within 1 month.

**Findings:** Within 1 month of follow-up, rates of clinical response to treatment were successful in 40% in group A (tetracycline) versus 73.3% in group B (bleomycin). A complete response occurred in 20% of group A cases versus 33.3% of group B cases. A partial response occurred in three cases in group A versus six cases in group B, and treatment failure occurred in nine of group A cases versus four of group B cases. None of the patients died. Morbidity was mild to moderate. The success of the pleurodesis was closely associated with higher glucose and pH levels together with a low LDH level in the pleural fluid.

**Interpretation:** The success of pleurodesis is usually higher when the pleural fluid pH and glucose levels are high and the LDH level is low in malignant pleural effusion.

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#### **AOS04. KNOWLEDGE, ATTITUDES, AND PRACTICES RELATED TO KNOWN RISK FACTORS AND SCREENING FOR CERVICAL CANCER IN ADULT FEMALES IN ESTATES IN KAHAWATTE, SRI LANKA**

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**Background:** Cancer is a major health problem and is among the leading highest causes of mortality in Sri Lanka. Risk factor prevention and screening are two effective methods of cancer control. We aimed to describe the knowledge, attitudes, practices, and associated factors related to known risk factors and screening for cervical cancer in adult females in estates in Kahawatta, Medical Officer of Health (MOH) area, Sri Lanka.

**Methods:** A descriptive cross-sectional study was carried out on a sample of 425 adult females in two randomly selected estates in the Kahawatta MOH area. An interviewer-administered pre-tested questionnaire was used to collect data. Data were analysed using SPSS.

**Findings:** The majority of the participants (92%) were Tamils and the mean age was 35.92 years. Only 86.1% (n = 346) were aware of cervical cancer. Awareness to cervical cancer risk factors was poor. Only 282 (81.5%) were aware of cervical cancer as a potentially deadly

disease. Less than a quarter stated that multiple sex partners of women (21%; n = 74), multiple sex partners of men (14.7%; n = 51), and early first intercourse (16.2%; n = 56) were risk factors. Only 37.3% were aware of cervical cancer screening and only 16 (8.5%) had undergone cervical cancer screening at least once during their life time. Out of ever-married women, 64% had married before age 20 years and 37% had three or more children. Older age was associated with better awareness of cervical cancer ( $p = 0.005$ ). Married women had a better awareness of cervical cancer risk factors ( $p = 0.032$ ). Women with white collared jobs had a significantly better awareness about cervical cancer screening ( $p = 0.004$ ). A significantly greater number of women with higher education had undergone cervical screening (Fisher's exact test  $p = 0.022$ ).

**Interpretation:** Poor awareness related to cervical cancer, known risk factors, and screening have to be addressed in future health programmes.

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#### **AOS05. PREDICTING PATTERNS OF FAILURE IN TEMPORAL LOBE GLIOBLASTOMA MULTIFORME: IMPLICATIONS FOR NOVEL RADIATION THERAPY TARGET VOLUME PROTOCOLS**

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**Background:** Radiation therapy (RT) target volume expansion protocols for high-grade glioma are based on determination of gross tumour volume (GTV) with uniform (isotropic) expansion to a final planning target volume (PTV). However, infiltration can occur along neural pathways that are non-isotropic from the initial tumour site. To aid design of novel RT protocols, the patterns of failure of temporal lobe glioblastoma multiforme (GBM) following treatment were assessed in relation to normal temporal lobe anatomy and neural pathways.

**Methods:** 335 patients with GBM received intensity-modulated RT between March, 2007, and July, 2014. 100 patients had GBM that was located in the temporal lobe. 86 patients had radiological progression and were included in the study. The site of initial tumour and subsequent relapse were subdivided into five local temporal lobe sites (anterior, lateral, medial, posterior, and superior), five adjacent regional sites (occipital lobe, inferior frontal lobe, caudate or internal/external capsules, and fornix and trigone of ventricle or thalamus), and five distant failure sites (ventricles, contralateral hemisphere, brainstem, leptomeninges, and spine). Extension along neural pathways was categorised into anterior, superior, medial, and posterior pathways. Analysis was conducted on patterns of failure in relation to initial location, failure sites, and neural pathways.

**Findings:** At diagnosis, 71% of patients had GBM that involved one temporal lobe site, 98% had GBM that was confined to the temporal lobe, and 19% had neural pathway disease. At first recurrence, 41% of failures were in temporal lobe sites alone, 3% were in regional sites, and 30% were in both, with total locoregional failure of 74%. 26% of