Cardiac hemangioma is one of the rare benign primary cardiac tumors with an incidence of 1% to 2%. To date, less than 15 cases of cardiac hemangioma causing RVOT obstruction have been reported.

(2) *Posterior Mediastinal Vascular Malformation*: A rare case of a 27-year-old male with an incidental finding of a right lung mass on chest radiograph and was confirmed as a posterior mediastinal mass on CT scan. The patient underwent thoracotomy to debulk the tumor, however, the procedure was aborted due to tremendous bleeding. The tissue samples submitted revealed an arteriovenous malformation and was confirmed on special and immunohistochemical staining. The patient was then scheduled for angiogram and embolization.

Most tumors of the posterior mediastinum are neurogenic in origin. An arteriovenous malformation in the posterior mediastinum is a very rare neoplasm with only 2 reported cases. To the best of our knowledge, this seems to be the third reported case of posterior mediastinal arteriovenous malformation (AVM).

(3) *Pulmonary Sclerosing Hemangioma*: A rare case diagnosed by frozen section biopsy in a 41 year old asymptomatic female who presented with a solitary pulmonary nodule discovered on routine annual medical chest radiograph. Immunohistochemical stains such as Thyroid Transcription Factor I (TTFI), Epithelial Membrane Antigen (EMA) and Cytokeratin were done.

Pulmonary Sclerosing Hemangiomas are rare, slowly growing benign neoplasms of uncertain histogenesis.

Results: Vascular lesions are difficult to diagnose for the inexperienced pathologist, clinician and thoracic surgeon. These lesions must be properly evaluated prior to any surgical procedure to prevent further complications such as bleeding. For pathologists, differentiating hemangiomas from other vascular tumors are difficult because most often and commonly in these three presented cases, biopsy material sent to the laboratory is inadequate and not representative of the entire mass. With minimal surgical specimen, the pathologist was able to confirm the benign nature of the lesion with immunohistochemical stains such as CD 31, S100, Factor VIII and elastic stain.

Conclusion: We have presented three thoracic vascular tumors to increase the awareness that although these tumors are rare and histologically benign, they may be life-threatening. Its treatment requires careful judgment and multidisciplinary team approach with the thoracic surgeon, cardiologist, pulmonologist and pathologists as well.

P1-160 **Pathology Posters, Mon, Sept 3**

Patterns of FoxP3 expression in tumor infiltrating lymphocytes

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Background: CD4+CD25+ Regulatory T cells (Tregs) have been shown to suppress host immune responses to a variety of cancers. Nuclear Foxp3 is currently the only specific marker for regulatory T cells. We describe the presence and pattern of Foxp3+ lymphocyte infiltration in human non-small cell lung cancers, confirming the presence of regulatory T cells with the hope of future immune targeted therapies.

Methods: Sixteen cases of formalin fixed paraffin embedded lung tissue were selected from the pathology archives, [13 primary lung carcinomas (5 squamous cell carcinoma, 4 adenocarcinoma, 3 adenocarcinoma with bronchoalveolar features (BACF), and 1 bronchoalveolar carcinoma (BAC), 2 inflammatory (1 bronchiectasis and 1 interstitial fibrosis) and 1 metastatic thyroid carcinoma]. Ages were 39-83 years, there were 10 women. The tissue was incubated with 1:50 dilution of purified anti-Foxp3 antigen (Biolegend). The amount of lymphoid stroma was measured as the percent of lymphoid tissue within 10 tumor high power fields (hpf- 20x).The percent of Foxp3 positive lymphocytes within each lymphoid aggregate was measured as percent positive per aggregate (40x). These were multiplied to give a Treg expression index (Foxp3 expression/aggregate)(number of aggregates).

Results: Squamous carcinoma had the least amount of lymphoid tissue (4.2%) and BAC/BACF had the greatest (6%). The greatest number of Tregs per hpf lymphoid tissue was in the metastasis (40/field) and least in inflammation (17.5/field). The highest Treg index was in the case of pulmonary metastasis (200). Of the primary lung tumors, adenocarcinoma (181), BAC (162) and BACF (146) were the highest. Inflammation (96.2) and squamous carcinoma (83.2) were at the low end. No trend was identified regarding location of lymph tissue at the tumor interface or within the tumor.

Conclusions: All lymphoid aggregates showed a sprinkling of Foxp3 positive nuclei suggesting that Tregs are present in all inducible lymphoid tissue, with variations in tumor type and total lymphoid quantity. Tumors that induced a greater amount of lymphoid stroma tended to have the greatest Foxp3 index. We did not find any case without at least scant Treg presence. Future immune directed therapeutic intervention may be possible after understanding the presence and pattern of these cells in non-small cell lung cancers.

P1-161 **Pathology Posters, Mon, Sept 3**

Nuclear and cytoplasmic cellular distribution of survivin as survival predictor in resected non-small-cell lung cancer

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Background: Survivin is a member of the inhibitors of apoptosis (IAP) gene family that acts through pathways different from those involving the bcl-2 family. Largely undetectable in normal adult tissues, survivin is deregulated in most human cancers including non-small-cell lung cancer (NSCLC) and may represent a tumor marker with prognostic and therapeutic implications. Aim of our study was to determine the prognostic role of survivin as an apoptosis-related biomarker in a series of early-stage NSCLC patients.

Methods: A retrospective series of resected NSCLC patients was retrieved from the files of the Regina Elena National Cancer Institute. Survivin was detected by immonohistochemistry (IHC) using a polyclonal antibody. Survivin displayed two kinds of immunoreactivity: a diffuse cytoplasmic staining and a distinct nuclear staining. A score-scale to distinguish positive (score 1-2) versus negative (score 0) pattern was applied. Clinical and biological (nuclear and cytoplasmic survinin staining) covariables were screened for a prognostic relationship with overall (OS) and progression free-survival (PFS) into a univariate and multivariate analysis.

Results: Data referring to 116 NSCLC patients who underwent surgery for stage I-IIIA NSCLC were collected. Multivariate analyses identified tumor size, nodal status and nuclear, but not cytoplasmic, expression of survivin as significant independent predictors of OS, with an hazard