We utilized the ascending aortic-banded rat and assessed the effect of Simvastatin on the development of PH secondary to left ventricular dysfunction. Subsequently, in rats subjected to aortic banding for 6 weeks, there were increases in mean pulmonary arterial pressure, pulmonary arteriolar medial thickness, Rho-kinase II, Rho-kinase activity, endothelial nitric oxide synthase (eNOS) and endothelin-1 (ET-1) concomitant with decreased levels in NO and cGMP in the lung. Treatment with Simvastatin at a dose of 30 mg/kg/day from day 1 to day 42 (early treatment) or from day 29 to day 42 (late treatment) decreased the mean pulmonary arterial pressure, mean left atrial pressure, right ventricular hypertrophy, pulmonary arteriolar medial thickness and pulmonary expression of Rho-kinase II and Rho-kinase I, respectively, as well as augmented pulmonary expression of NO, respectively, when compared with the vehicle controls, In addition, Simvastatin significantly decreased the pulmonary ET-1 and increased the pulmonary cGMP in the early treatment group, not the late treatment group.
In conclusion, these results suggest that inhibition of HMG-CoA reductase may provide therapeutic potential for preventing and attenuating the development of PH in left ventricular dysfunction. Further translational study in human is needed to substantiate the findings.

M3
Inflammatory myofibroblastic tumor in the lung with feeding vessel: mimicking a congenital lung malformation

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Numerous literatures have cited that Inflammatory Myofibroblastic Tumor can behave as a malignant tumor both clinically as well as radiologically. However, there is paucity of article reported that it can mimic as a congenital lung malformation.
In this report we describe a unique occurrence of an inflammatory myofibroblastic tumor of the lung with feeding vessel.
An asymptomatic 15 year old female patient had chest radiograph that incidentally showed a solitary parenchymal mass on the left lower lung lobe. Further investigations of her condition by Chest CT scan revealed a well defined homogeneously hypodense mass lesion with no internal calcification and with a large pulmonary vessel supplying the lesion. Initial impression then was pulmonary sequestration versus pulmonary arteriovenous malformation, considering the presence of a feeding vessel. Resection of the mass was done with gross findings of a tan ovoid globular tissue with a well circumscribed white to yellow surface with punctuate hemorrhages. Histopathological report was consistent with an inflammatory myofibroblastic tumor.
Surgical resection is the treatment of choice resulting to an excellent outcome, as was done to patient who was discharged improved. Long term follow up however is imperative to detect possible recurrences.

M4
Role of human coronavirus in Brazilian hospitalized children with respiratory lower infection

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Acute lower respiratory infections (ALRI) are a major cause of morbidity and mortality worldwide, particularly in children under 5 year of age. These respiratory infections are mainly caused by bacteria and viruses. With the expansion of molecular diagnostics assays, human bocavirus (HBoV),human metapneumovirus (hMPV), Rhinovirus, human coronaviruses, and others viruses were discovered and easily detected in respiratory specimens compared with conventional methods such as viruses culture. Bronchiolitis(BVA) and Pneumonia(PNM) are frequent and constitute an important cause of hospitalization in Brazil and others countries in Latin America. An understanding of the Brazil epidemiology is crucial for identifying target groups and appropriate timing of public health preventive measures such as therapies.
In this study, we aimed to investigate epidemiological of a Human coronavirus associated to a well defined clinical patients with lower respiratory infection.
Materials, Patients and Methods: *Patients:* This is a substudy of an ongoing prospective brazilian investigation of respiratory tract infections in children and adults in the city of Rio de Janeiro, Brazil. This study was approved by all participating institutional review boards.
Samples: The specimens were collected from infants within the first 48 hours after admission and up to five days of clinical manifestation before admission. All the patients included were submitted to a clinical examination, case history and nasopharyngeal aspirate (NPA).
Respiratory Virus Nucleic Acids detection: Nasopharyngeal aspirates were submitted to nucleic acid extraction using the NucliSENS EasyMAG platform (bioMérieux, France), in combination with the NucliSENS magnetic extraction reagents (bioMérieux, France) and NucliSENS lysis buffer (bioMérieux, France).
Results: A total of 217 children with well documented diagnosis of pneumonia (n = 53/217, 24.4%), bronchiolitis (n = 160/217, 73.3%) or ARDS (n = 4/217, 1.8%) admitted in the emergency room (n = 174, 80.2%) or ICU (n = 43, 19.8%). Only one agent was detected in 49% and more than one was detected in 31%. The negative samples represented 13, 8% of all NPA submitted. The most common virus detected were RSV. The Human Coronavirus was detected in 15/217 samples (7%). Of these, five were presented alone and in 10/15 codetection with other agents. Five children had diagnosis of BVA and two of these required admission to the intensive care unit. The median age was 31 months, ranging from 1 month to 144 months. The BVA cases occurred in children under 1 year. The average days of symptoms before admission was 4 days, all cases had wheezing on physical examination and respiratory insufficiency occurred in 3 children (all with BVA). Respiratory symptoms, hypoxemia and need for mechanical ventilation was not different in group Coronavirus positive in relation to other agents found. All 15 cases had used inhaled oxygen, systemic corticosteroids in six and in 2 cases needed mechanical ventilation. Prematurity was present in 3 cases and 2 children had bronchopulmonary dysplasia.
Discussion: In this study, we applied multiplex RT-PCR of nasopharyngeal aspirate samples for prospective evaluation of respiratory viruses associated with hospitalized with ALRI. HCoV-NL63 was usually identified in younger children, primarily those less than 2 years of age, which could reflect greater susceptibility because of immunologic immaturity of young children. We analyzed the clinical characteristics of those with HCoV-NL63 infection with and without co-detection by another virus and there were no differences.
Conclusions: Despite these limitations, this study compared prevalence, epidemiology, and clinical manifestations of Human coronavirus in ALRI. There are few reports with this results.