

**The relationship between clinically suspected pneumonia and presence of radiologic findings on chest radiography amongst hospitalized children in Bou-Ali hospital during 2019-2020**

***Abstract***

**Background:** *Pneumonia is the state of infectious pulmonary inflammation specially alveoli. Pneumonia causes 13% of all infectious diseases in children under 2 years old. Clinical forms of pneumonia are separated due to their anatomic diffusion to lobar (one lobe), interstitial and bronchopneumonia.*

**Aim:** *Determining the relationship between radiologic features with clinical symptoms in children with suspected pneumonia.*

**Methods and materials:** *The current study is a cross-sectional one. Sampling was done randomly among all children with suspected pneumonia. Age, gender and clinical presentation data was gathered retrospectively. The basic Chest X-rays of patients were evaluated. Finally, the obtained data were analyzed using SPSS.v.22.*

**Results:** *Among all patients, affirmative basic Chest X-rays of pneumonia were confirmed for 211 (70.3%) patients, which 119 (56.4%) ones were boys. The mean age of patients was  $4.36 \pm 2.96$  years. Coughing and fever with a prevalence of 79.6% and 76.3% were the most common clinical manifestations, respectively. In patients under 2 years old, fever was more prevalent than coughing. Reticulonodular involvement pattern was the most prevalent radiological characteristic of the studied cases. Lobar involvement was seen in 12.8% of cases. Also, bilateral pulmonary involvement was reported for approximately 65% of the patients.*

**Conclusion:** *The most common pattern of the pulmonary involvement in children suffering from pneumonia in Ardabil was the reticulonodular pattern. Bilateral involvement and focal infiltrates were the most common findings of chest X-ray. Also, fever and coughing were the main clinical presentations in pediatric pneumonia.*

**Keywords:** *Pneumonia, Chest X-ray. Pediatrics*