

## **PULMONARY ARTERIAL HYPERTENSION IN YOUNG PEOPLE**

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**Abstract:** Pulmonary arterial hypertension (PAH) is defined as a circulatory abnormality characterizes by increased vascular resistance in the small circulation, usually through mixed mechanisms, involving vasoconstriction, arterial wall remodeling and in situ thrombosis. The progressive increase in pulmonary vascular resistance (PVR) leads to right ventricular failure (IVD) and early death. The diagnostic criteria are: systolic pulmonary artery pressure (PASP) > 30 mmHg and diastolic pressure (PDAP) > 15 mmHg , mean pulmonary artery pressure (PMAP) > 25 mmHg at rest, or > 30 mmHg during exercise<sup>1,2</sup>. PAH is classified into three subgroups:1- Idiopathic pulmonary arterial hypertension (IPAH). 2- Familial pulmonary arterial hypertension (PAH). 3- Pulmonary arterial hypertension related to risk factors or associated conditions (PAH)

**Keywords:** hypertension, arterial, pulmonary, young.

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Pulmonary arterial hypertension (PAH) is defined as a circulatory abnormality characterized by increased vascular resistance in the small circulation, usually through mixed mechanisms, involving vasoconstriction, arterial wall remodeling and in situ thrombosis. The progressive increase in pulmonary vascular resistance (PVR) leads to right ventricular failure (IVD) and early death. The diagnostic criteria are: systolic pulmonary artery pressure (PASP) > a 30 mmHg and diastolic pressure (PDAP) > a 15 mmHg , mean pulmonary artery pressure (PMAP) > 25 mmHg at rest, or > 30 mmHg during exercise<sup>1,2</sup>. PAH is classified into three subgroups:1- Idiopathic pulmonary arterial hypertension (IPAH). 2- Familial pulmonary arterial hypertension (PAH).3- Pulmonary arterial hypertension related to risk factors

or associated conditions (PAH)<sup>2</sup>. It can be associated with heart disease, collagenosis, thromboembolic disease, HIV infection, drugs, toxins, parasites (*Schistosoma mansoni*), among others. This review aims to highlight. and draw attention to the importance of early diagnosis of pulmonary hypertension in young people, as it does not distinguish between age groups and initially presents in a silent manner, which can lead to death in more severe cases. The literature review of this project was carried out using the key words “Pulmonary arterial hypertension”; “young”. A search was carried out at the Scopus and Scielo bases. PAH presents onset and progression in different ways, according to each case. It is not possible to determine the same mechanism or set of pathophysiological mechanisms explaining the vasoconstriction and the evolution of vascular remodeling in all forms of PAH. Furthermore, even if we consider a single form of the disease, the pathophysiological mechanisms involved vary according to the evolutionary phase. The fact that there are no significant differences in the characteristics of patients, in their clinical presentation, reinforces the need for active investigation of the different diagnoses of pulmonary hypertension, thus avoiding the inappropriate use of available therapeutic alternatives. Idiopathic pulmonary arterial hypertension is more common in women in the third decade, the incidence is 6 cases per million inhabitants (1.7 women: 1 man). Hereditary transmission occurs in approximately 6-10% of patients with PAH, and in 50-90% of these individuals have a BMPR2 mutation. The mortality rate in treated patients is approximately 15% in one year, and a median survival of 3.6 years.

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