

Do not ignore pulmonary hypertension any longer. It's time to deal with it!

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Pulmonary hypertension (PH) is a condition that not only causes many problems for those suffering from it, but also can exacerbate and complicate many other diseases. PH can be responsible for mortality in many patients.

Tackling PH is not exclusively related to the field of cardiovascular diseases. Many other diseases in other fields of medicine may interfere with PH. Pulmonary diseases, renal, hepatic, collagen vascular disease, infectious and hematologic disease may be related with PH. In patients suffering from aforementioned diseases, PH can exacerbate the primary disorder and even cause mortality. Pregnant women afflicted with PH have a 30-50% mortality rate.¹ Newborns and children with pulmonary or cardiovascular disorders can be later afflicted by PH. PH drastically increases the risk in surgeries and in anesthesia and can be the cause of mortalities² or deteriorated outcomes in patients after surgery.³

According to the latest guidelines,⁴ there are 5 categories of PH (Table 1):

- 1- Pulmonary arterial hypertension
- 2- Pulmonary venous hypertension (previously named pulmonary hypertension due to left heart disease)
- 3- Pulmonary hypertension associated with hypoxemic lung disease
- 4- Pulmonary hypertension caused by chronic thromboembolic disease
- 5- Pulmonary hypertension from conditions with uncertain mechanisms

For a long time, the science of medicine had no remedy for PH and physicians could only stand by and watch PH patients die.

After some time, factors which complicate PH are known and it has been shown that controlling these factors is helpful. Patients are advised, for instance, to refrain from heavy exertion, to avoid pregnancy, and to be vaccinated against the flu and pneumococcal infections. PH patients' life expectancy has increased dramatically as a result of this newly acquired knowledge.

Table 1. Classification of pulmonary hypertension

Category 1: Pulmonary Arterial Hypertension

Idiopathic (IPAH)
Sporadic
Familial
From exposure to drugs or toxins
From exposure to HIV infection
Persistent pulmonary hypertension of the newborn
Associated with other active conditions:
Congenital systemic to pulmonary shunts
Collagen vascular disease
Portal hypertension
Pulmonary capillary hemangiomatosis (PCH)

Category 2: Pulmonary Venous Hypertension

Left-sided atrial or ventricular heart disease
Left-sided valvular heart disease
Pulmonary venous obstruction
Pulmonary veno-occlusive disease (PVOD)

Category 3: Pulmonary Hypertension Associated with Hypoxemic Lung Disease

Chronic obstructive lung disease
Interstitial lung disease
Sleep-disordered breathing
Alveolar hypoventilation disorders
Chronic exposure to high altitude
Developmental abnormalities

Category 4: Pulmonary Hypertension Caused by Chronic Thromboembolic Disease

Chronic pulmonary thromboembolism
Nonthrombotic pulmonary embolism (tumor, foreign material)

Category 5: Pulmonary Hypertension from Conditions with Uncertain Mechanisms

Sarcoidosis
Chronic anemia
Schistosomiasis
Histiocytosis X
Lymphangiomatosis

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As PH was becoming better known, symptomatic cures came to patients' help. Diuretic drugs were used to control edema and anticoagulants were used to put thromboembolic attacks in check.

Then, it was time for revolution in PH management. With the emergence of advanced PH treatment, science of medicine became able to seriously deal with PH.

This new strategy was showed to be able to prevent mortality in PH patients (Figure 1).⁵

Prostacyclin showed that it is possible to enhance PH patients' chance of survival. Phosphodiesterase inhibitor drugs, which were used for treating impotency for a long time, were demonstrated to be effective for reducing pulmonary pressure.

Eventually, endothelin receptors were targeted. By the advent of endothelin receptor blockers such as

Bosentan, physicians' chances of helping PH patients were further improved.

Today, with advanced PH treatment, PH is not counted as before and the science of medicine as a failed discipline.

It is important not to forget PH in patients, especially ill patients or intractable to traditional treatment, in surgery wards or obstetric, pediatric, internal medicine, ICU or CCU wards of hospitals.

By timely diagnosis, it will be possible to control PH patients in an effective way and to enhance their chance of survival.

So, it is time now to pay more attention to PH. Don't ignore it any longer; it's time to deal with it.

Conflict of Interests

Authors have no conflict of interests.

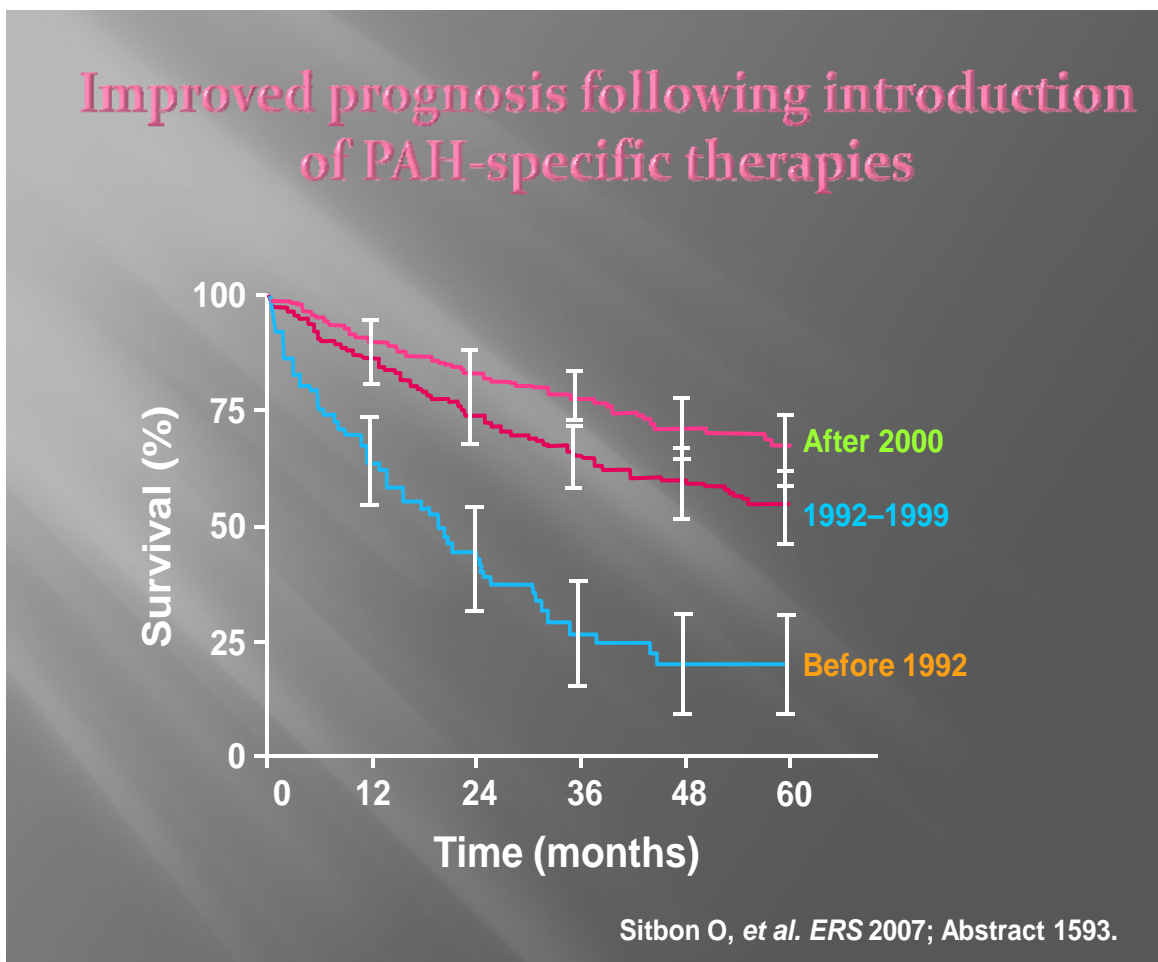


Figure 1. Efficacy of advanced pulmonary hypertension treatment.

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