Short Communication

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A comprehensive drug review on macitentan: a preeminent inclusion to pulmonary arterial hypertension therapy

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Abstract

Macitentan is a radically novice oral orphan drug which was approved by FDA in Oct 2013 (under trade name Opsumit®). It belongs to the class of the endothelin receptor antagonist (ETRA) and is indicated for the treatment of pulmonary arterial hypertension (PAH). PAH is a chronic disorder of raising blood pressure in the artery between the aisle of heart and lung. Till the date, the disease remains incurable and possesses a poor prognosis. A ray of hope in this direction is shown by Macitentan, which has been proved beneficial in decreasing disease progression symptoms and reducing hospitalization. Phase III SERAPHIN trials clearly indicate that it improves morbidity, mortality and 6MWD data compared with other drugs of the same class. Furthermore, its use is seemingly increasing for the treatment of other cardiovascular disorders related to ET system. However, the pharmacokinetics dose adjustments of Macitentan in patients with renal or hepatic impairment are extraneous. Drug–drug interactions are occult, and one circulating pharmacologically active metabolite (ACT-132577) is omnipresent. The safety profile of Macitentan is superior to other drugs of same ETRA's class with prolonged receptor binding properties, greater tissue penetration, hepatic safety, edema/ fluid retention and easy dosing, but it is similar when the decrease in hemoglobin concentration is taken into account. Macitentan attributes, hence, are appended and revolutionary important in the therapeutic longterm treatment and a better alternative remedy for PAH. The present review thus delineates the complete drug profile of Macitentan from the data of studies carried out till date and alleges it as a sanguine future for an overall improved CVS healthcare contributor.

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Biography

Dr. Asif Husain is currently working as a Senior Asst. Professor in the Department of Pharmaceutical Chemistry at Hamdard University.

