

Salbutamol: Historical Reality: A Saving Life In The Asthmatic; And Doping For The Sportsman

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Received date: March 13, 2020; **Accepted date:** April 15, 2020; **Published date:** May 09, 2020

Citation: Carolle Laure Kpoumie, (2020) Salbutamol: Historical Reality: A Saving Life In The Asthmatic; And Doping For The Sportsman. J Clinical Research and Reports, 4(2); DOI:10.31579/2690-1919/074

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Asthma of the Greek "a-sthma" means little or no breath. The beliefs of the ancient times cite as the causes of this disease the cooling and humidity of the lung, in the Middle Ages, the first treatise on asthma offers various treatments such inhalation of herbs, chicken broth and cold baths.

In 1816, RENE LAENNEC, the inventor of the stethoscope, described asthma as the result of bronchospasm and bronchial inflammation, and in 1864 an English doctor A.Newton designed the first inhaler for powdered drugs.

In the twentieth century, we are witnessing the synthesis of several molecules including SALBUTAMOL, manufactured to treat asthma, so anyone with a narrowing of the bronchi, a cough, a lack of air, wheezing, a tightness of the chest, a laborious expiration, a great fatigue, which causes anguish, and sometimes a vital risk. 250000 people are victims each year, the frequency of these crises increases since 1960, with a visibly high rate in developed countries. Used in Britain since 1969, it is used in the United States in 1980.

Salbutamol will be used in the gynecological and obstetrical world, because of its muscle relaxant effect on the uterine muscle by promoting the relaxation of the uterine muscle, used for tocolysis, (tocolytic), it causes a relaxation of the uterine muscle. , tones the cervix, inhibits contractions of the uterus during delivery, it will be used in the prevention of premature births.

In 2008, a study shows its action in cases of neuromuscular diseases.

In 1968, Salbutamol will become the most prescribed bronchodilator in the world. Discovered by DAVID HARTLEY, DAVID JACK, LAWRENCE LUNTZ AND ALEXANDER RITCHIE of the British company Allen and Hanburys, former division of Glaxo-smith kline marketed under the name of Ventolin; who will stop the acute crisis and save the life of the asthmatic.

Overdose will result in tachycardia (200 beats per minute), headache, tremors, palpitations, excitement, risk of habituation, somnolence, hypokalaemia, cardiac arrest, or even life-threatening.

Salbutamol will allow athletes with asthma to participate in high level competitions, Jackie Joyner-Kersey's asthma discovered for the first time at age 18, during a severe acute crisis, which does not preclude not this one to win 6 gold medals in women's Heptathlon during 4 consecutive Olympic games in the years 1980-1990. Athletic asthmatic Mark Spitz also wins 7 gold medals at the Olympic Games.

Its use in the sporting world raises some questions. The International Olympic Committee and the World Anti-Doping Agency forbid the use of this molecule citing it on their doping list.

It turns out that Salbutamol: increases the strength and size of skeletal muscles, causes a decrease in adipose tissue, increases the maximum aerobic power (VO₂max) and muscle resistance. These effects in athletes will help improve their breathing function, exercise capacity, resistance, decreased recovery time and stimulation of the will;

The story holds in 2007 the cyclist Alexandro Petacchi winner of 5 stage wins of the Giro d'Italia and at the top of the ranking. However, tested positive for salbutamol, tennis player Filippo Volandri in 2008 with this product at the Indian Wells tournament.

On the other hand, to avoid penalizing athletes with asthma under this treatment, this substance is authorized under very specific conditions by the World Anti-Doping Code of AUT (Therapeutic Use Authorization). Under presentation of a medical justification of the therapeutic necessity by the athlete, its control will however be positive if the presence of Salbutamol in the urine exceeds 1000ng / ml (quantity largely above the norms for therapeutic treatment). Cyclist Oscar Pereiro during the Tour de France in 2006 tested positive for salbutamol, but justified a TUE declared valid by the French Agency for the fight against doping; as well as cyclist Miguel Indurain whitened quickly in 1994.

The concentration of Salbutamol is therefore abnormal if it is greater than 1000 nanograms per milliliter, unless the athlete can prove by a study of the fate of the product in the body that this result is the consequence of the use of a therapeutic dose by inhalation up to the maximum dose of 1000ng / ml.

In 1994, the nickname "Olympic Games of Asthmatics" was given to the winter games in Lillehammer, with 70% having a TUE in Salbutamol.

According to the evening newspaper, 33% of the 238 French athletes used salbutamol during 1998.

Salbutamol is on the WHO list of essential medicines.

Phew relief for the lives of asthmatics and sports careers and performance for its doping effect. According to Pierre de Coubertin, renowned historian, "sport is the voluntary and habitual cult of intensive muscular exercise, supported by the desire for progress and up to risk"



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DOI: [10.31579/2690-1919/074](https://doi.org/10.31579/2690-1919/074)

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