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[Thunderstorm and asthma outbreaks during pollen season].

[Article in Italian]

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Abstract

An increasing body of evidence shows the occurrence of asthma epidemics, sometimes also severe, during thunderstorms in the pollenseason in various geographical zones. The main hypothesis explaining association between thunderstorms and asthma claims that thunderstorms can concentrate pollen grains at ground level; these grains may then release allergenic particles of respirable size in the atmosphere after their rupture by osmotic shock. During the first 20-30 minutes of a thunderstorm, patients suffering from pollen allergy may inhale a high concentration of the allergenic material dispersed into the atmosphere, which can, in turn, induce asthmatic reactions, often severe. Subjects without asthma symptoms but affected by seasonal rhinitis can also experience an asthma attack. All subjects affected by pollen allergy should be alerted to the danger of being outdoors during a thunderstorm in the pollen season, as such events may be an important cause of severe bronchial obstruction. Considering this background, it is useful to predict thunderstorms during pollen season and, thus, to prevent thunderstorm-related clinical event. However, it is also important to focus on therapy, and it is not sufficient that subjects at risk of asthma follow a correct therapy with bronchodilators, but they also need to inhale corticosteroids, using both in case of emergency.