EDITORIAL

Asthma and Sex

"Sex lies at the root of life..."

Havelock Ellis

Attacks of asthma can be provoked by a variety of stimuli, including infections, allergens, exercise, and emotional stress. Sexual intercourse as a trigger factor for attacks of asthma and the morbidity caused thereof is not well recognized'. Although studies have documented the impact of chronic obstructive pulmonary disease and cystic fibrosis on sexual activity, surprisingly, little attention has been paid to the effect of asthma on sexual life. Evaluation of impairment in health related quality of life is now an accepted way of assessing both the effects of asthma and its treatment on the patient's daily lives. However, in two of the most widely used asthma specific quality of life questionnaires, there is not a single item on the effect of asthma on sex4,5.

Sexual activity can trigger off asthma in more ways than one. In some asthmatic subjects sexual excitement associated with anxiety can cause asthma as well as rhinitis. This has been recognized as postcoital asthma and rhinitis and can occur in both males and females'. Asthmatic attacks along with other hypersensitivity manifestations may rarely occur in female subjects allergic to proteins in the seminal fluid of the partner and is known as human seminal plasma allergy (HSPA)6,7. Condom usage too can cause an asthmatic attack in both males and females due to latex allergy8,9. This is often associated with local allergic manifestations. This is termed as condom induced asthma. Thus, we see that there are three distinct forms of coitus linked asthma.

Postcoital asthma or "sexercise induced asthma" describes asthma tic episodes that cannot be ascribed to any cause other than sexual excitement. Anxiety and apprehension are a predominant feature in such patients and their partners. Coitus has been reported to lead to acute severe asthma requiring visits to the emergency department, hospitalization' and even assisted ventilation". Even though the term postcoital asthma has been used, wheezing dyspnoea in some patients can commence merely with intimate contact only even prior to actual coitus and this often prevents satisfactory completion of coitus leading to further anxiety and aggravation of the attack'. Postcoital asthma has also been reported to have followed 4-6 hours later by a late asthmatic response'.

"Sexercise induced asthma" is not a form of exercise induced asthma. In such patients, within minutes of sexual activity, there is a significant drop in peak expiratory flow rates (PEFR) but when these patients are asked to climb two flights of stairs, an exercise considered equivalent to the energy expended during sexual intercourse, there is no fall in the PEFR12. Although exercise can cause rhinorrhea (athlete's nose)13, neither climbing two flights of stairs nor an exercise provocation test elicits symptoms of rhinitis in these patients. It appears that sexual excitement, rather than exercise, is the likely cause of postcoital "honeymoon rhinitis"14.

Sexual activity for the first time may set the stage for an associated asthmatic attack or may aggravate pre-existing asthma. Intense emotional stimuli during sexual intercourse can lead to autonomic imbalance with parasympathetic over reactivity, thereby causing release of mast cell mediators that can provoke postcoital asthma and/or rhinitis in these patients'.

Hypersensitivity to seminal plasma, in women, is an exceptionally rare phenomenon and is termed as HSPA. It is usually caused by sensitization to seminal fluid proteins and occurs during or immediately after intercourse. This is thought to be mediated by the classical IgE-
mediated pathophysiological mechanisms. This little known disorder was first recognized by the Dutch gynaecologist Specken\textsuperscript{15} in 1958. The first report\textsuperscript{6} from the Asian continent was documented by us in 1988\textsuperscript{6}. The patient had presented to us as a case of asthma.

The manifestations of HSPA range from local pruritis to life-threatening anaphylaxis and are classified as either local or systemic. The systemic features include pruritis, urticaria, angioedema, chest tightness, breathlessness, wheeze, cough, sneezing, rhinorrhoea, dizziness and anaphylaxis leading to collapse and loss of consciousness. These patients can present as asthmatics. The local manifestations of vulvar and vaginal itching, burning, redness, swelling and pain usually occur simultaneously with the systemic syndrome. The symptoms manifest during or soon after coitus. Many patients complain of a gradual worsening of their condition over a few hours after which the intensity abates even in the absence of treatment\textsuperscript{16}.

Majority of the patients, usually those with systemic features, have a strong atopic background. A personal or family history of asthma, allergic rhinoconjunctivitis or atopic dermatitis has been elicited in most patients. Infertility too has been observed in patients with HSPA\textsuperscript{6}. However, successful induction of pregnancy has been achieved by artificially inseminating spermatozoa separated from seminal fluid\textsuperscript{17}.

Prevention of symptoms by use of condoms points towards a definitive diagnosis of HSPA. The diagnosis is confirmed by in vivo and in vitro immunologic methods. The in vivo skin tests include prick and intradermal tests using seminal plasma antigen prepared from fresh semen of the partner. The in vitro tests comprise demonstration of raised total serum IgE levels and elevated specific IgE antibodies to seminal plasma. Desensitization has been shown to be successful in a few patients\textsuperscript{18}.

Condom induced asthma is another type of coitus linked asthma wherein attacks of asthma are triggered by allergy to latex or antioxidants/chemicals that are used for lubrication. This can occur in both males and females. Apart from asthma and other systemic manifestations, these patients also experience local swelling and/or pruritis during intercourse\textsuperscript{8,19}. Life-threatening anaphylaxis due to condom usage too has been reported\textsuperscript{20}. In such latex-sensitive patients, non-latex condoms made from lambskin or a plastic polymer can be used. Concurrent allergy to human seminal plasma and latex has also been documented\textsuperscript{21}.

It is important to distinguish these three categories of coitus linked asthma as the therapeutic approach varies in each. The local forms of HSPA frequently go unrecognized as they are often misdiagnosed as vulvovaginitis, while the local manifestations of condom induced asthma may easily be misinterpreted as non-specific postcoital symptoms. A high index of suspicion is required as the various forms of coitus linked asthma can easily be overlooked due to patient embarrassment and lack of physician awareness, especially in our social conditions and busy outpatients department.

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