SUDDEN NATURAL DEATH DUE TO MILIARY TUBERCULOSIS-A CASE REPORT

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Abstract:

Tuberculosis usually takes a chronic, cachexic and exhausting course. In this article a young doctor dies of massive haemoptysis and on autopsy diagnosed as miliary tuberculosis.

Keywords: Sudden natural death, Miliary tuberculosis

Introduction;

Death is said to be sudden or unexpected when a person not known to have been suffering from any dangerous disease, injury or poisoning is found dead or dies within 24 hours after the onset of terminal illness (WHO)[1]. These sudden unexpected deaths, especially in younger age group not only cause grief to the relatives but also they become suspicious as to the cause of death.

A forensic pathologist during medico legal autopsy not only deals with unnatural deaths but also sudden natural deaths. Most of the victims are young healthy, with no previous history of medical illness, usually there is sudden onset of symptoms and is brought to emergency medicine department in a gasping state or dead on arrival. Autopsy of these cases may show that victim was suffering from chronic illness, that could have been treated, however there is no history of such illness available from next kith or kin.

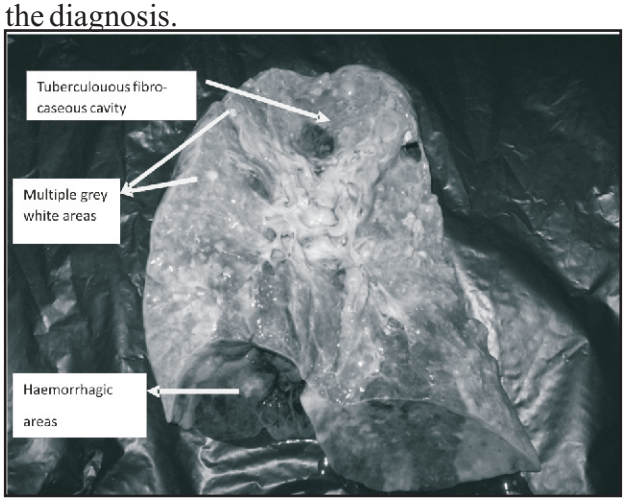
Case report;

A young medical professional aged 22years had an episode of massive haemoptysis was brought to hospital in state of shock ,patient did not respond to resuscitative measures and was declared dead. Previous history of treatment for allergic bronchitis by a chest specialist present.

Autopsy findings:

External findings; Dead body was that of a female aged about 22 years, moderately built and nourished, rigor mortis present all over the body, post mortem staining was not visible, lips and nail beds pale. Evidence of treatment like endo tracheal tube, intravenous cannula were found in situ

Internal organs were pale, trachea showed frothy blood, both lung surface showed haemorrhagic and multiple grey white areas. Cut section of lungs showed multiple nodules ranging from 0.2cm to 0.5cms, with areas of necrosis involving both the lungs diffusely, with a cavitation at apex of left lung filled with blood. The findings were consistent with miliary tuberculosis with cavitation. The lungs were sent for histo- pathological examination to confirm the diagnosis.



Photograph showing cut section of left lung

Microscopic examination of left lung showed multiple granulomata distributed throughout the parenchyma. The granulomata are composed of epitheloid cells, lymphocytes and langhans type of giant cells with large areas of necrosis. Some of the granulomata are seen in proximity with

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blood vessels. The intervening areas of parenchyma shows large areas with inter alveolar haemorrhage with many haemosiderin laden macrophages; some of the aleovalar spaces contain amorphous eosinophlic material and many foamy macrophages. The ziehl Neilson stain showed numerous acid fast bacilli. Section of right lung showed large areas of intra alveolar haemorrhages, the rest of parenchyma showed emphysematous change and alveolar spaces contain amorphous eosinophlic material. Few necrotising granulomata were seen.HPE opinion consistent with miliary tuberculosis.

Discussion:

Sudden death due to respiratory causes is relatively infrequent and comprises approximately 10% of all sudden natural deaths[2]. Massive haemoptysis occur in following conditions;

1. Neoplasm's or inflammatory lesions of nasopharynx;
2. Tumour and carcinoma of the bronchus with erosion into a pulmonary artery;
3. Cavitary tuberculosis;
4. Cavitary lung abscess (Non tuberculous bacterial);
5. Bronchiectasis;
6. Aortic aneurysm with erosion and rupture into a pulmonary bronchi or the oesophagus (leading to haemtemsis)

Tuberculosis is easily diagnosable upon autopsy due to the characteristic lesion. Camps et al reported on the haemoptysis which was due to rupture of a blood vessel inside tuberculosis cavity resulting in "occasional deaths"[3]. The probable cause of death in this kind of cases could be due to 'shock' after profuse bleeding or by an 'asphyxial' mechanism after inspiriting a small amount of blood from the ruptured blood vessel[4].

Usually in tuberculosis, the disease takes a chronic, exhausting and cachexic course and rarely sudden death. In the present case reported the victim was a young doctor, had consulted a specialist for her cough and diagnosed as allergic bronchitis. But tuberculosis was diagnosed only after death. Medical science has advanced; innovative diagnostic investigations and drugs are available for treatment. But tuberculosis is easily diagnosable and treatable. However in this case the victim (a doctor) could have ignored the symptoms and the treating doctor also missed the diagnosis because the disease could have progressed aggressively after the initial diagnosis of allergic bronchitis.

To conclude, even though gradual control of tuberculosis is in progress, still death and disability exists. Usually the disease is seen in low socio economic group and immune comprised individuals nevertheless it can affect any one. Tuberculosis should be excluded in patient presenting with respiratory infection and other than screening once, should followed up subsequently to prevent this kind of sudden natural deaths that is preventable.

Sudden death due to miliary tuberculosis as principle cause of death is occasional, hence this case is reported.

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