



H114 Sudden Death Secondary to an Undiagnosed B-Cell Lymphoma of the Hypopharynx and Infiltration of the Inferior Constrictor Muscle

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The goal of this presentation is to share a common form of sudden death due to a mechanical obstruction of the hypopharynx by an undiagnosed B-cell lymphoma that was localized and diffusely infiltrating the inferior pharyngeal constrictor muscle.

This presentation will impact the forensic science community by introducing a case that demonstrates once more that in the absence of specific data, a thorough forensic investigation including autopsy, histological examination, and circumstantial data collection is mandatory in order to reach a correct cause of death.

A forensic examination by means of scene investigation, circumstantial data collection, autopsy, and histological and toxicological investigations were performed on biological samples (urine and cardiac blood) taken during the autopsy, and led to the conclusion that the cause of death was asphyxia, correlated with B-cell lymphoma of the hypopharynx.

The victim, in the words of her son, was unaware of any malignant disease but, at the same time was taking medication containing codeine for the hacking cough. This data was confirmed, later, by the analysis of blood and urine, which showed the presence of 48ng/ml of free codeine (therapeutic dose) and excluded the presence of other toxins.

In the presented case, the woman called for rescue but, when the emergency ambulance arrived, was discovered lifeless on her bed with a phone in her hand. The telephone operator reported that the woman had dyspnea and exhibited speech difficulties during the call.

The external examination of the body revealed only cyanosis of the face and the upper part of the chest, as well as the presence of rare bilateral conjunctival petechiae. The autopsy examination highlighted the presence of a wall thickening, infiltrating the circumference, growths and projecting into the hypopharynx lumen with abundant mucus, of papillomatous aspect. The lungs exhibited congestion and spillage of a foamy material, while the other vital organs display no other disorders.

The histological analysis showed the essential finding of a B-cell lymphoma (CD 20+) of the hypopharynx, diffusely infiltrating the inferior pharyngeal constrictor muscle, in addition to a massive pulmonary emphysema, edema, and abundant congestion of small vessels, coherent with a passive hyperemia. From a clinical point of view, this study highlights how the lymphoma growing through the wall of hypopharynx and diffusing among the fibers of the inferior pharyngeal constrictor muscle, could have shaped an inadequate contractions and a laryngospasm, causing the suffocation.



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This type of tumor is extremely rare in this area and literature reports few cases of sudden death, with the occasional autopsy finding of a hypopharyngeal neof ormation. According to these cases, the cause of death could start as a possible displacement of the mass leading to asphyxial death or an abnormal contraction of the pharyngeal constrictor muscle.

B-Cell Lymphoma of Hypopharynx, Asphyxia, Sudden Death