

Case Report

Non Traumatic Sub Dural Haemorrhage Following Long Term Oral Contraceptive Use

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Abstract

Unusual and accidental findings are sometimes very confusing for Forensic experts to interpret particularly when proper history and treatment records are not available. It often leads to wrong interpretation and miscarriage of justice. The case reported is of an elderly female with history of intermittent fever, found unconscious at home and declared brought dead in casualty. The post-mortem findings showed the presence of subdural haemorrhage in left parieto-occipital region, which raised suspicion of blunt trauma to head. However there was absence of any scalp/skull injuries. The detailed history revealed long term use of oral contraceptive pills by the deceased. The cause of death was concluded as spontaneous subdural haemorrhage, as a complication of long term use of oral contraceptives. This case report highlights the importance of referring previous medical records and history taking before the autopsy in unusual cases which will eliminate most of doubts and also helps in corroborating the findings at autopsy.

Key Words: Subdural Haemorrhage, Oral Contraceptive Pills, Blunt Trauma

Introduction:

Subdural haemorrhage results from direct blunt trauma either as the result of an assault, fall or vehicular accident.

Subdural hemorrhages can also result from sudden acceleration-deceleration of the head such as occurs with a rear-end collision by a motor vehicle, blast injury or violent shaking during torture. [1] However, acute spontaneous subdural haemorrhages without any traumatic history or vascular anomaly are rarely reported in literature.

Few documented risk factors include hypertension, vascular malformations, and haematological malignancies causing thrombocytopenia, prolonged contraceptive use, and solid tumours with dural metastases, infection, hypervitaminosis, coagulopathy and alcoholism. Bleeding from cerebral artery aneurysms or cortical arteries has also been reported. [2]

Despite the general acceptability, and the obvious advantages attributed to contraceptive use, some serious side effects have been reported in women taking the pills. Epidemiologic studies have indicated a relationship between contraceptive use, platelet changes and thromboembolic phenomenon. Prolonged intake leads to bleeding manifestations in the body. [3]

We describe a case in which an elderly female with history of prolonged intake of oral contraceptives developed spontaneous unilateral subdural haemorrhage which emphasized on careful assessment and consideration of pathological factors than traumatic etiology in the development of subdural haemorrhage.

Case Summary:

A 45 year old woman brought to Safdarjung Hospital with a history of intermittent fever where she was declared brought dead. Body was sent for post-mortem and treatment records were deposited in record section of the hospital. On enquiring relatives before conducting autopsy, they revealed that she used to take mala-D tablets regularly since her last child birth which was 16 years ago..

External Examination:

The body was that of obese female wrapped in white coloured hospital cloths. Rigor mortis was fully established. Post-mortem hypostasis was present over the dependent areas. On examination purpuric spots were

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noted on her lower limbs. No external injuries present over the body.

Internal Examination:

Head and Neck: Scalp and skull were normal without any signs of injury. (Fig. 1) Brain showed softening with congestion and oedema. A Thin film of subdural haemorrhage was present over left parieto-occipital region without any mass affect. (Fig. 2) Rest of the brain was normal.

Uterus and its appendages were normal except for hypertrophic changes. No abnormality was detected in rest of the body systems. No investigations were done and hence haemogram records were not available.

Cause of death was given as “**Cerebral haemorrhage and its sequelae**”.

Discussion:

Acute subdural haemorrhage is a life-threatening injury with a high mortality rate. Most cases are a result of trauma leading to bleeding from subdural portion of bridging veins.

Intracranial haemorrhage presenting as subdural haemorrhage is an extremely rare presentation in adults and only few cases have been documented. [4] Oral contraceptives have been the preferred method of birth control because of their ease of use and high rate of effectiveness. However, its long term use increase the concentrations of many coagulation factors and reduce that of antithrombin III, increase platelet adhesiveness and reduce venous flow velocity by increasing venous distensibility and whole-blood viscosity.

All of these effects increase the risk of thromboembolism and susceptibility to bleeding. The association between arterio-venous thromboembolism and use of oral contraceptives is well established. [5]

In our case there was neither pre-existing history of any trauma nor any past haemorrhagic diathesis. It is conceivable that thrombocytopenia and abnormal platelet function along with disturbance of coagulation profile as a side effect of contraceptive use might have increased the risk of subdural haemorrhage. Medical records play a vital role in these cases. We tried to access previous treatment records which were available with relatives and corroborated it with our post-mortem findings which helped us in coming to the diagnosis. Taking proper history from police, relatives and referring previous medical records in unusual cases carries lot of importance while framing the diagnosis.

So it is imperative that all unusual findings must be meticulously examined, photographed and if needed, history and prior

treatment records may be looked upon prior to autopsy.

Conclusion:

Interpretation of autopsy as well as clinical findings with diligence is one of the prerequisite in any medico-legal case. Before deriving any conclusion at post-mortem, proper history and treatment records should be looked upon to eliminate most of doubts which also helps in corroborating the findings at autopsy.

Doctors concerned with medico-legal autopsies, should be well versed with these unusual findings while concluding their opinions and to aid in the administration of justice.

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Fig. 1: No evidence of Subscalpal Hemorrhage



Fig. 2: Left Sided Sub Dural Hemorrhage

