SUBCUTANEOUS EMPHYSEMA FOLLOWING INDUCTION OF LABOUR WITH SYNTOCINON

by

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Subcutaneous emphysema sometimes referred to as Hamman's Syndrome is an exceedingly rare complication of the second stage of labour where the severe explusive effort might cause an alveolus to rupture allowing the air to escape via the lung root (Gordon, 1927; Knox, 1963; McCollum, 1940; Roth, 1943; Spellacy and Prem, 1963; Wiland and Crowder, 1951, as quoted by Friend J. R., 1966). Friend J. R. (1966) reported 2 cases of subcutaneous emphysema occurring before 28th week of pregnancy over and above 4 cases reported earlier.

We are reporting a case of subcutaneous emphysema following induction of labour with syntocinon drip for leaking membranes at full term pregnancy because of its variety in obstetric practice.

CASE REPORT

Mrs. E.D., age 19 years PO + O, primigravida with full term pregnancy was induced with 2 units of syntocinon drip for leaking membranes on 20-9-80. After a short first stage of labour and with a considerable straining effort in the second stage, she delivered a live female baby weighing 3.8 Kg., normally without any complication. Two hours after delivery she complained of fulness of the face, pain at the upper part of the chest and difficulty in breathing.

On examination general conditions was fair, pulse was 112 per minute, B.P. 110/70 mm Hg. and a-febrile. On palpation of the skin of the neck and lower part of the face crackling sensation was felt suggesting of subcutaneous emphysema. A chest X-ray (Fig. 1) showed that there was free air in the neck and lower part of the face and shoulder with no evidence of fracture of the rib, pneumothorax and pleural effusion. She was treated conservatively with rest in bed in prop-up position, analgesics, and antibiotics. She was discharged on request on eighth day after delivery. At the time of discharge, the emphysema was much reduced without any respiratory difficulty and uterus was invulated normally. Lochia was healthy. When she came back for check up after 15 days, emphysema had entirely disappeared.

Comment

The Patho-physiology of the production of the subcutaneous emphysema has not been clearly understood. The generally accepted view is that the condition arises from the rupture of the vesicles at the root of the lung. The air escapes underneath the pleura, extends into the anterior mediastinum, and so underneath the cervical fascia and over the neck and chest. It may also arise from the lesion of the

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maxilary sinuses and oesophagus above the diaphragm.

The patients are almost invariable primipara where there were strong expulsive uterine contraction during second stage of labour. The condition is undoubtedly favoured where resistence is increased owing to the child being of exceptionally large size, or the pelvis being deformed, or soft parts unduly rigid (Munro Kerr, 1971). In our patient the expulsive efforts was enhanced by syntocinon and moderately large size baby weighing 3.8 kg.

It is important to localise the site of lesion because in rupture of the oesophagus, where prompt surgery is indicated the patient looks ill and there is associated pyrexia from mediastinitis, pneumothorax or plural effusion. The patient deteriorates rapidly. When the rupture occurs at the alveolus, the outlook is always good and the patiend invariably makes an uninterrupted recovery after conservative treatment. At times needling may be necessary to release the enclosed air under tension.

Our case described confirmed the general view that the clinical picture of the conditions are relatively benign. But how far induction with syntocinon has contributed in producing subcutaneous emphysema in the present case cannot be ascertained.

Acknowledgements

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References

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2. Munoro Kerr: Munoro Kerr's operative Obstetrics 1971, Eight Edition page 921.

See Fig. on Art Paper VI