

## SPONTANEOUS DELIVERY OF CONJOINED TWINS AT TERM

by

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Few medical men are called upon to conduct a case of labour in which the products consist of a double monster and even obstetricians of considerable experience will see no more than two or three confinements so complicated in their life-time. Nevertheless, a practitioner may one day find himself face to face with such an obstetric emergency, either in his own or his brother practitioner's practice. It is therefore necessary for him to know what has been the usual history of such cases and in what way the difficulty in delivery may be overcome (Ballantyne 1902). The purpose in reporting this case and reviewing the literature is to add to the common pool of knowledge which would be useful to the obstetrician who is confronted with such a case.

The immediate cause of monozygotic twinning is either the very early separation of embryo-

nic cells into two identical halves, each of which develops into a complete embryo, or, if the separation is incomplete, different forms of conjoined twins may result. Double monsters occur about once in 50,000 births (Feldman 1937) and are more frequent in multiparae with a history of twins; female monsters are two or three times more common than male. The earliest case on record seems to be that of the 'Biddendon Maids', born in A.D. 1100 in England, united from the hips to shoulders and with only one pair of upper and lower extremities shared between them. Rarely, each twin is self supporting as in the case of the "Siamese twins", Eng. and Chang Bunker, who were united only by fibrous tissue (xiphopagus). It is said that the first of these was born spontaneously as a breech and the second as a vertex. They were born of Chinese parents in Siam and were discovered by a British merchant. Taken to North America, they were exhibited in a circus by Barnum, and later settled as farmers in North California under the name of Bunkers. At forty-four, they married two English sisters and, spending alternate weeks with their

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respective wives, had families of 5 and 6 children. They lived from 1811 to 1874.

Apart from its historical and embryological interest, the problem, being of interest to all obstetricians alike, has assumed a greater importance since the surgical separation of the Siamese twins of Kano by Ian Aird (1954) and should be kept in mind in every case of multiple pregnancy and hydramnios. The importance of antenatal diagnosis is obvious. Discovery of the condition in the second stage of labour makes the management difficult and often dangerous. An early diagnosis may enable one to substitute the destructive procedures by the conservative methods.

#### Case Report

Smt. L. G. N., aged 26 years, was admitted to B. Y. L. Nair Charitable Hospital, Bombay, on 2nd August 1966 at 1.30 a.m., with a history of 9 months' amenorrhoea and labour pains. She was a fourth para, fifth gravida. This was the only occasion during this pregnancy she attended this hospital. There was no family history of twins.

She was of average build and well nourished. Her tongue was pink and moist, pulse rate was 80 per minute and her blood pressure was 110/70 mm./Hg. Systemic examination revealed no abnormality.

Uterine contractions were coming every 3 to 4 minutes, lasting for about 40-50 seconds, with good relaxation between them. The uterine size conformed to the period of amenorrhoea, the foetus was in vertex two position and the foetal heart sounds were heard. The membranes had ruptured prior to admission, the pelvis was found to be adequate and a foetal head was palpable in the midcavity with a three-fourth dilated cervix. At 3.00 a.m. the head was seen on the perineum, but there was no progress. The uterine contractions were now comparatively weaker. By the

time arrangements were being made for examination under anaesthesia and forceps application if necessary, the foetal heart sounds disappeared and the head was delivered with traction on the foetal head. At this time it was found that a second foetal head was engaged between the head and the shoulders of the first. The second head was then born. The conjoined trunks of the foetuses were expelled next at 3.40 a.m. The single placenta was expelled within five minutes. Examination of the genital tract after delivery did not show any evidence of injury. The combined weight of the babies was 3400 gms. Both babies were female and were stillborn. They were found to be united to each other in the region of the chest and upper abdomen down to the umbilicus. (See figure). Puerperium was uneventful.

#### Comments

Spontaneous delivery of conjoined twins is not very uncommon. In most of the cases the twins rarely weigh more than 4000 gms. These babies are either premature or macerated. If the band of union consists of soft tissue (and therefore elastic) the twins frequently slip through the birth canal. This particular case is of interest because the conjoined twins were born vaginally without any surgical interference and because of the particular mechanism involved in the delivery.

#### (A) Mechanism of spontaneous delivery

1. The twins may be born rotated with respect to each other, the first one for example is born as vertex and the second as breech. Cases reported by Chaphekar (1966) and Verghese (1968) are examples of this particular mode of delivery.

2. One of the heads may be born first, the other in the meanwhile oc-



cupying the space between the chin and the chest of the leading foetus and then two trunks being born simultaneously. The case reported by Shaw (1943) is an example of this particular mechanism. This mechanism is more likely to occur when the trunks of the two foetuses are relatively fixed in relation to each other.

#### (B) *Diagnosis*

This condition should be kept in mind in each and every case of multiple pregnancy. Shaw stated that double monsters have never been diagnosed before labour. This was probably true prior to the employment of radiography. The criteria on which the radiological diagnosis of thoracopagus should be based are described by Gray, Nix and Wallace (1950) as follows:

(a) The heads are at the same level and plane.

(b) There is unusual backward flexion of the spines.

(c) There is no change in the relative positions after movement, manipulation and time.

(d) There is unusual proximity of the spines.

#### *During labour*

The problem is recognised when labour is obstructed during the second stage.

#### (C) *Management*

Management varies, depending upon whether the diagnosis is made during pregnancy or labour. Mahafouz (1949) warns against hasty methods of treatment and attempts at forcible extractions.

#### *Modes of delivery suggested*

##### 1. *Synchronous delivery in parallel.*

When the size of the conjoined twins is small.

##### 2. *Caesarean section*

Munro Kerr states "Without doubt Caesarean section be employed if the foetuses are large". The indication here is mainly maternal. Further progress in neonatal surgery on the lines of Ian Aird might make it advisable to do a Caesarean section whenever foetal heart sounds are present. Misra (1957) did Caesarean section for conjoined twins weighing 11 lbs.

##### 3. *Intra-uterine separation and delivery*

According to Smellie, this is right in theory but seldom possible in practice. Most of the cases where interference has been needed are cases of second stage dystocia. However, Bhargava (1960) and Shah (1960) relieved the second stage dystocia by separating the thoracopagus. Misra (1957) did embryotomy for conjoined twins weighing seven pounds

#### *Summary and conclusions*

1. A case of thoracopagus with spontaneous vaginal delivery following traction in the second stage of labour is presented.

2. Historical aspects are summarised with special reference to the Siamese twins.

3. Importance of antenatal diagnosis with its bearing on management has been discussed.

4. The mechanism of spontaneous delivery has been discussed.

5. Caesarean section in place of destructive procedures is suggested for maternal and foetal indications in view of the surgical separation of Siamese twins by Ian Aird.

#### *Acknowledgement*

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*See Fig. on Art Paper III*



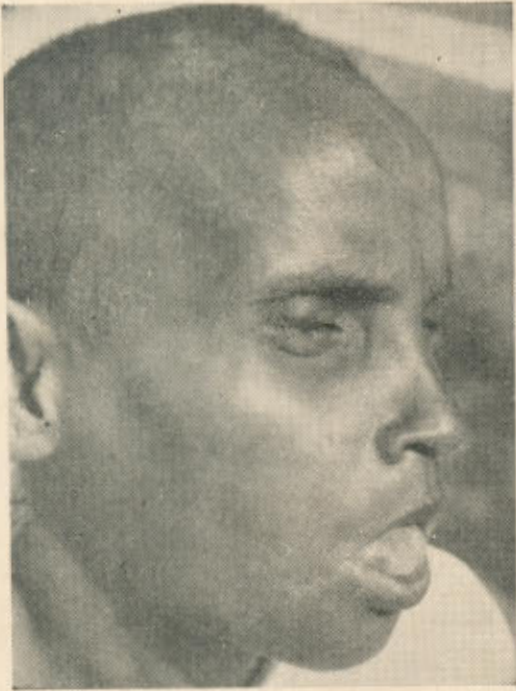


Fig. 1  
Showing anaemia, phrenoderma, lustreless scalp hair with patches of alopecia, angular stomatitis and glossitis.



Fig. 3  
Showing adherent leukoma with vascularisation and peculiar dry peri-orbital skin in the left eye.



Fig. 2  
Showing phthisical right eye with prolapse of iris (temporal sector) and flat opaque cornea (infero-nasal sector).

*Interstitial Pregnancy following Homolateral Salpingectomy—Kapas, pp. 494-500*



Fig. 1  
Ruptured interstitial pregnancy. Hysterectomy done—uterine cavity opened through posterior wall.

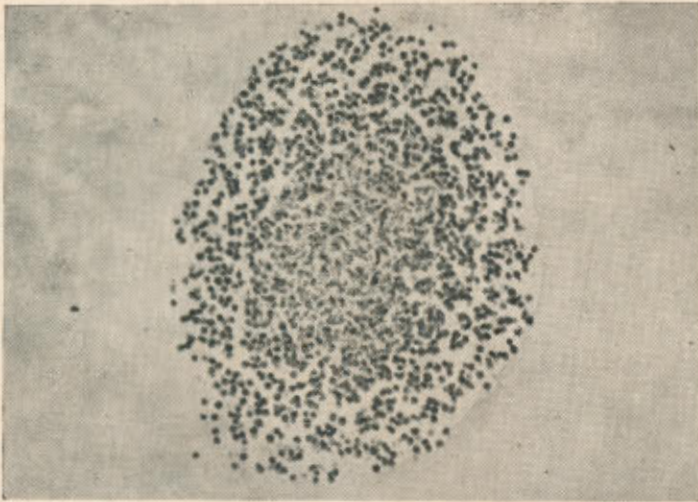


Fig. 3

Cross-section of a minute tumour with a central necrotic (and presumably anoxic) zone. The viable cells at the periphery of this zone are presumably hypoxic and, therefore, more radio-resistant than the cells at the outer margin of the tumour.



Fig. 4 A

A carcinoma of the tongue before radiation therapy.



Fig. 4 B

The same patient following local radium needle treatment. This demonstrates the ability of radiation to selectively destroy tumour cells with adequate restitution of the area by normal cells.

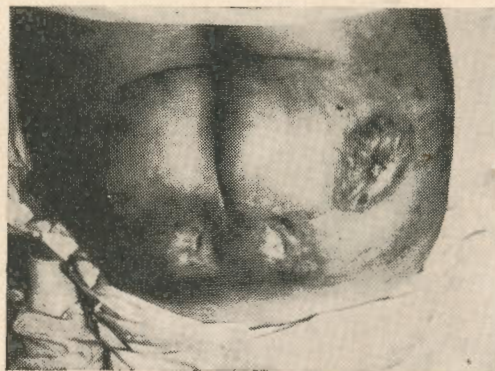


Fig. 5

An example of radiation injury many years after treatment of cancer of the cervix.

Figs. 1 and 2 in text.





Fig. 1  
Conjoined twins—Thoracopagus.



Fig. 1  
Macroscopic picture of dysgerminoma of ovary  
(Lt.) (B.M.).

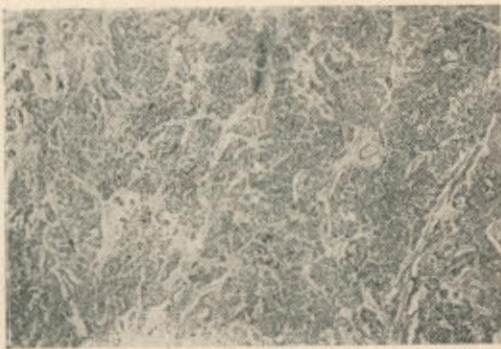


Fig. 2  
Low power view (H. & E. x 80).

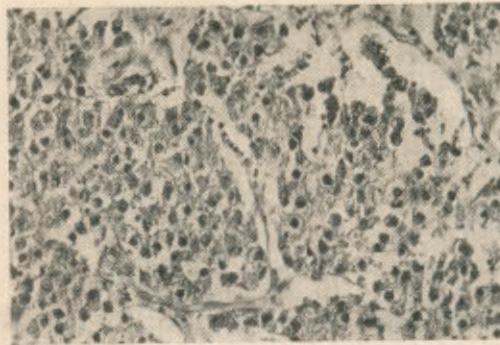


Fig. 3  
High power view showing cellular details of a  
typical dysgerminoma (H. & E. x 165).

*Dysgerminoma of Ovary followed by Pregnancy*  
Krishna, pp. 516-520

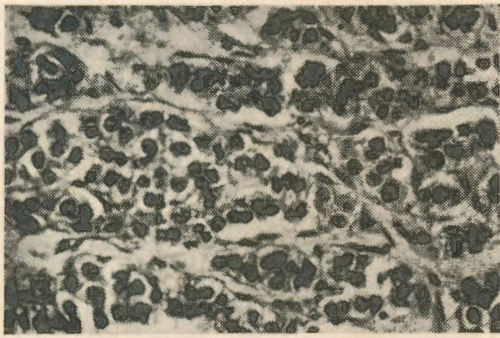


Fig. 1  
High power microphotograph of dysgerminoma  
of ovary.

*Meigs' Syndrome Benign Papillary Cystadenoma of Ovary—Pankajam and Meharothra*  
pp. 521-524

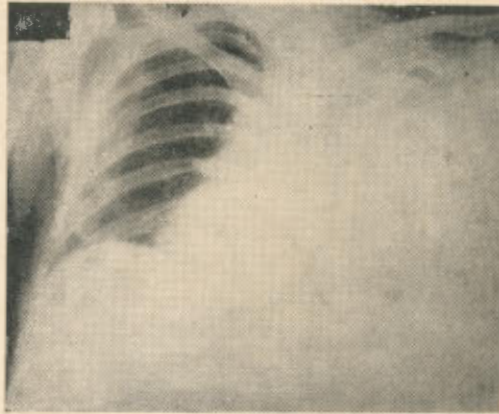


Fig. 1  
X-ray chest before the operation.

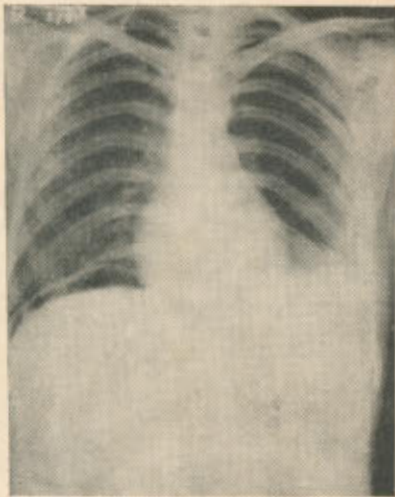


Fig. 2  
X-ray chest 10 days after the operation.

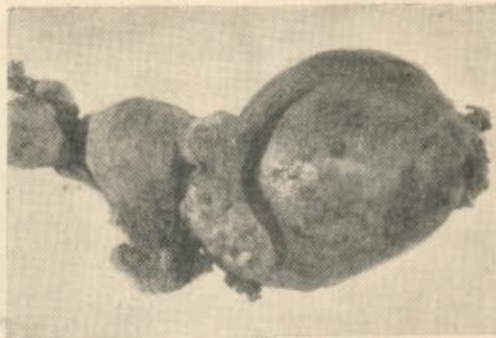


Fig. 3  
Photograph of the right ovarian tumour with  
the uterus and normal left sided ovary.



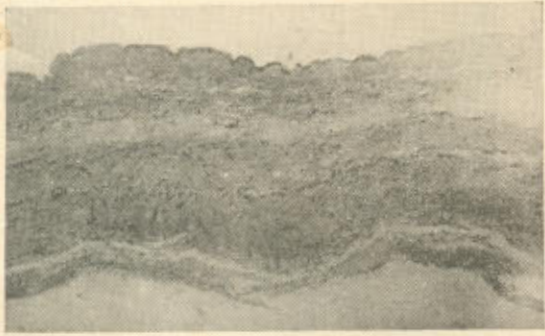


Fig. 1  
Low power magnification.

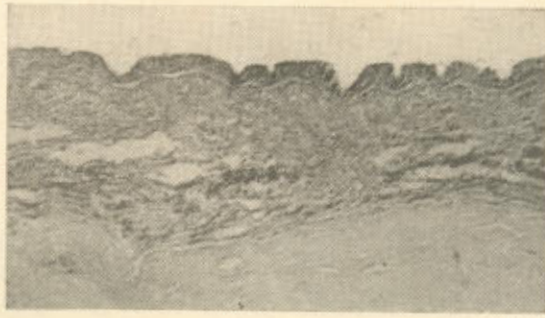


Fig. 2  
High power magnification.

Fig. 3 in text.

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*Uretero-Cervical Fistula of Tuberculous Origin—Garehgrat et al., pp. 528-530*

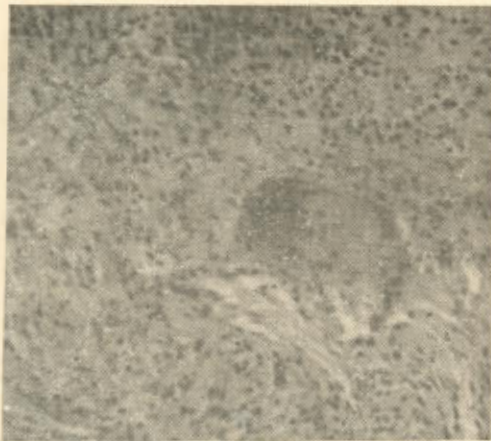


Fig. 1  
Showing histopathological characteristics of a tubercle.

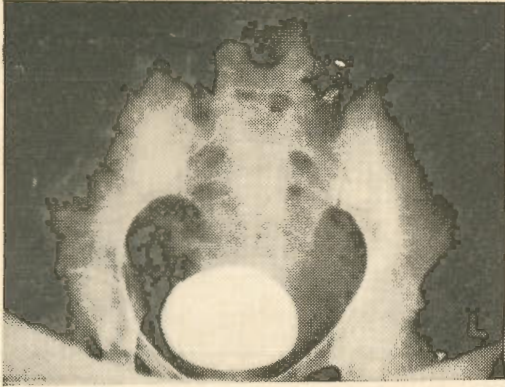


Fig. 1  
Straight x-ray showing radio-opaque shadow at bladder area.

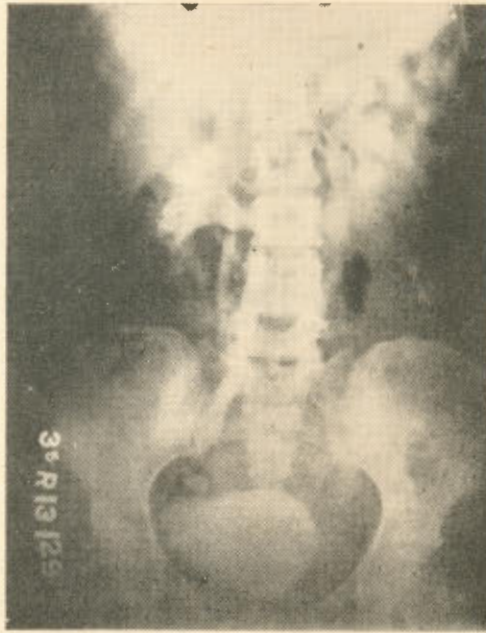


Fig. 2  
Intravenous pyelography showing mild degree of pressure effect on both kidneys.

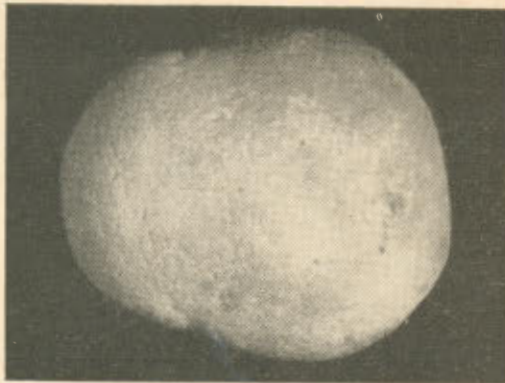


Fig. 3  
Bladder stone (3'' x 2.5'').



thetia. The head was removed piece-meal with some difficulty. While applying traction to the skull bones with the volsellum, both the parietal bones came out and with it the brain matter; then the rest of the head came out easily. Few bits of placental tissue were present in the uterine cavity which were also removed. The uterine cavity was explored, but no rent was felt. Bleeding was average during the extraction of the head. Intravenous methergin 0.2 mg. and 5 units of pitocin in one pint of 5 per cent glucose drip were given. While extracting the head the thread of the loop was seen. The loop did not come out on traction over the thread, so it was left as such. Patient was given 350 c.c. of blood after the operation and also injection of anti-tetanus serum and anti-gas gangrene serum.

The head after removal showed that there was absence of the left eye, left side of the lower jaw and the tongue. Rest of the head was intact.

Her puerperium was uneventful. Besides having a temperature upto 100°F for the first two days she did very well. There were no signs of generalised or localised peritonitis. Even after opening up the abdomen for removal of the loop and sterilisation no signs of residual infection were seen.

X-ray of the pelvis was taken on 3-8-1965 which showed that the loop was outside the uterus and in the peritoneal cavity. Laparotomy was done on 20-8-68 for removal of the loop and tubectomy. The loop was found to be in the posterior layer of

the broad ligament on the right side with its threaded end in the uterine cavity.

### Discussion

The severed head can be delivered by fingers hooked into the mouth and pulling on the jaw and manipulating it out as a face presentation, or pulling by means of the crochet. If the pelvis is contracted the head is steadied by suprapubic pressure and by applying sponge holding forceps. The head is then perforated and removed with the cranioclast. The problem here was that the decapitation was done 18 hours before admission, there was severe infection and the cervix had partially closed. Removal of the head by pulling with the help of the crochet or finger in the mouth was not possible, as part of the lower jaw on the left side was absent. Supposing the cervix had closed completely, then it would not have been possible to extract the head per vaginam; then in the presence of severe sepsis the only way out would have been to do a hysterectomy with the head in situ. This case should be a lesson for all of us not to handle a case unless we know how to complete the delivery of the baby and the placenta.