Destructive obstetric instruments: what do they destroy?

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They destroy the fetus in the uterus.

The instruments shown in the figures were used more than a hundred years ago to perforate and crush the fetal head in cases of hydrocephalus or disproportion, and in prolonged labour when the fetus had died. The perforator was used to puncture the fetal skull, release the contents, and reduce its size (Fig 1). The centre piece of the cranioclast was used to make the perforation (Fig 2a) and then the two-side blades approximated by tightening the screw on the handle to crush the fetal skull (Fig 2b).

The art of midwifery must be one of the oldest of acquired skills. In its early days, difficult deliveries and obstructed labours must have taxed the skills of the obstetrician. When the fetus was stuck at the pelvis it would die from the prolonged labour and asphyxia. Assisted delivery by means of forceps and caesarean section were not introduced until the 17th century. Various destructive instruments seem to have been known for a very long time, but there are scanty descriptions of them in texts.

Francois Mauriceau (1637-1709), the famous French obstetrician, was the first to describe craniotomy and extraction of a dead child. He invented a perforator and another instrument to extract a dead baby after making a hole in the head so that the brain could come out and the bones collapse. In the 18th century, William Osborn (1736-1808) was a great believer in craniotomy. He claimed to have once successfully extracted a fetus through a pelvis with an anteroposterior space as narrow as three quarters of an inch.[1,2]

When I was a student in obstetrics at the new Tsan Yuk Hospital in 1957, I first saw the instruments shown here. They were placed in the library of the hospital, moved there from the old Tsan Yuk Hospital. I never saw them used. They were donated to the Hong Kong Museum of Medical Sciences by the Hospital in 1996 at the foundation of the Museum. The reason why these destructive instruments became obsolete is obvious: they were dangerous instruments. Often they not only destroyed the fetus, but also caused serious injury to

FIG 1. The cranial perforator donated to the Hong Kong Museum of Medical Sciences by Tsan Yuk Hospital in 1996

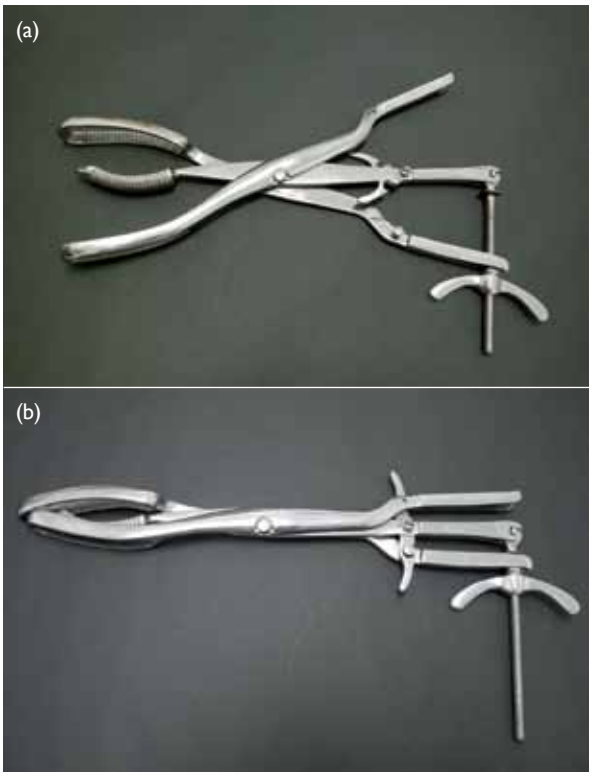

FIG 2. The cranioclast donated to the Hong Kong Museum of Medical Sciences by Tsan Yuk Hospital in 1996
The cranioclast with (a) the jaws open showing the centre piece and the two-side blades, and (b) the side blades approximated

the mother. Since the 20th century, delivery has been made safe with the use of forceps, vacuum extraction, and caesarean section. Destructive operations have been abandoned forever.

Nevertheless we have great sympathy for our ancestors. In such difficult situations, no intervention might also be disastrous. The following sad story gives an account of the plight of those who belonged to the non-intervention school. Sir Richard Croft (1762-1818) was the obstetrician attending the only daughter of King George IV, Princess Charlotte, whose son would have been in line to the throne. The princess had a very difficult delivery, but Croft allowed her to go for 2 whole days of labour without assistance, even denying her any sustenance, although forceps were at hand. When the child was delivered, stillborn, it was found to be a large, 9-pound male. The poor exhausted mother had a retained placenta that had to be delivered manually, by which time she was very weak indeed. Croft's brother-in-law, Baillie, advised restoratives, and she was given large quantities of port wine. She died the following morning. Sir Richard was so criticised for his handling of the case that he committed suicide by shooting himself.[2]

References

1. O'Dowd MJ, Philipp EE. The history of obstetrics and gynaecology. New York and London: Parthenon Publishing Group; 1994: 141.
2. Radcliffe W. Milestones in midwifery. Bristol: John Wright & Sons Ltd; 1967: 50.