CASE OF CONGENITAL ATRESIA OF THE OESOPHAGUS WITH INFANTILE PYLORIC STENOSIS

BY
G. E. FOSTER, Major, R.A.M.C.
and
R. E. SHAW, M.D.
Pathologist, King Edward VII Memorial Hospital, Bermuda

History. A healthy white woman of 24 was delivered on October 14, 1944, of her third full term male child which weighed 5 lb. 15 oz. The infant cried promptly but was cyanosed. There was abundant mucus in the pharynx, and moist medium râles were present throughout the chest. No pyloric tumour was noted. Oxygen by nasal funnel relieved the cyanosis until the child fed, whereupon, within twenty seconds, it became deeply cyanotic, choked, and regurgitated nearly all the feeding. Hypodermoclysis with 5 per cent. glucose saline was instituted.

X-ray investigation was carried out on October 17, 1944.

1. Fluoroscopy. Thin barium suspension was given under the fluoroscope and was seen to fill the oesophagus to the level of the clavicle, where it collected as in a pouch, which when full contracted and expelled the barium.

2. Films of the thorax and abdomen after barium (fig. 1, B) show that the bronchi are outlined, and fine mottling is seen in the right and left lung fields. Those of the abdomen show that the stomach contains gas and, in its distal portion, a dense shadow such as that caused by barium.


Progress. After consultation with the senior

Fig. 1, A.—X-ray of thorax and abdomen before ingestion of barium.

Fig. 1, B.—X-ray after ingestion of barium. (a) Outlined bronchi. (b) Fine mottling both lung fields. (c) Barium shadow in stomach.
A 
B
FIG. 2.—Photograph of specimen.  
(A) Anterior aspect.  (B) Posterior aspect.  
(a) Larynx.  (b) Trachea.  (c) Bifurcation of trachea.  
(d) Distal oesophagus.  (e) Stomach.  (f) Pylorus 
(hypertrophic, stenosed).  (g) Right lung (lower 
portion cut away).  (h) Left lung.  (i) Director in 
esophageal pouch (proximal oesophagus).

Bermuda surgeon, Mr. W. E. Tucker, surgery was 
considered inadvisable. The child died on the 
eighth day.

**Necropsy report** (Dr. R. E. Shaw). The body 
was that of an emaciated white male infant, aged 
eight days, weighing 4½ lb.

The stomach, oesophagus, lungs, trachea, larynx, 
heart, and great vessels were removed en masse. 
On opening the stomach and lower oesophagus, the 
latter was found to join the trachea posteriorly at 
its bifurcation. The trachea was otherwise normal, 
except that the mucous membrane had a more 
linear appearance where it opened into the oeso-
phagus. The proximal portion of the oesophagus 
ended in a blind pouch one inch below the level of 
the cricoid cartilages of the larynx (fig. 2).

The lungs presented a mottled appearance, the 
mottling consisting of red, firm areas, some of 
which appeared as aletectic spots while others 
were pneumonic; these red areas were scattered 
throughout both lungs.

The stomach was normal except at its pyloric 
end, where there was hypertrophy of the pylorus 
with consequent stenosis.

The bowel was shrunken and contained only a 
small amount of fluid and mucus.

The liver, pancreas, spleen, genito-urinary and 
osseous systems, were normal.

**SUMMARY.** Death was due to inanition and 
pneumonia due to congenital atresia of the oeso-
phagus with tracheo-oesophageal fistula. Infantile 
pyloric stenosis was present.

**Discussion**

1. Grey Turner stated (1944): 
   (i) Congenital atresia of the oesophagus 
       occurs once in about 2500 births;
   (ii) Four out of 21 such cases operated upon 
       by Cameron Haight in America re-
covered;
   (iii) Operation should be performed on the first 
or second day of life.

2. The association of infantile pyloric stenosis 
   with congenital atresia of the oesophagus, unless 
   this is merely a coincidence, is important if surgical 
treatment of the latter is considered, since, if un-
recognized, it might vitiate a successful operation.

3. The early onset of infantile pyloric stenosis in 
   this case may possibly be related to the absence of 
   food in the stomach, with consequent non-neutraliza-
tion of the gastric juices (Engel’s theory of 
hyperacidity).

**Reference**

Case of Congenital Atresia of the Oesophagus with Infantile Pyloric Stenosis

G. E. Foster and R. E. Shaw

Arch Dis Child 1946 21: 55-56
doi: 10.1136/adc.21.105.55

Updated information and services can be found at:
http://adc.bmj.com/content/21/105/55.citation

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/