Schmitz (11)

[redacted]: Enlisted Man POW.

Wounded in action 9 July 1944 near Castellina, Italy by American artillery fire.

Admitted to 12th Gen. Hosp., 12 July 1944 from 33rd. Field Hosp.

Died: 19 July 1944 from sulfonamide nephropathy and acute gastric dilatation subsequent to his wounds.

This 18 year old German soldier sustained a sucking thoracic wound 9 July 1944 for which he was operated upon the following day (33 F.H.) and the subsequent hemothorax treated by water trap aspiration. He was given 1000cc of blood (undoubtedly low titre "O") followed by urticaria and itching. At the 12th Gen. Hosp., he was found to be slightly dyspneic and a small amount of air was seen in the left chest; which was aspirated 15 July and 400cc of clear fluid (culture non-hemolytic staphylococcus) and an equal amount of air removed and tube inserted. A second posterior pocket was drained on 18 July by water trap method. A further pocket of foul pus was located by aspiration on the left and drainage was to be done. On 18 July a transfusion of type "O" blood was stopped because of a chill after the first 50cc had flowed in. Immediate recheck of donor and recipient showed the former to be "O" and the patient an "A"; serum from patient was not hemoglobinemic, there was no hemoglobinuria, and the urine was negative for red cells, casts and albumen. The reaction was considered to have been pyrogenic. The following day the patient died suddenly while receiving the first 100cc of an "O" blood transfusion.

The salient features of the Autopsy were as follows: 3,4,5,6.

A. The intercostal spaces are prominent. There are two thoracotomy wounds, one in the seventh interspace of the left chest antero-laterally, and one posteriorly on the same side in the fifth interspace. The tubes are still in place, sealed with sutured fascia. The entire left chest is flat to percussion and the area of heart dullness is shifted to the left.

B. The primary incision discloses scanty fat and flabby thin musculature. All peritoneal surfaces are smooth and clean. The small and large bowel are flat. The appendix is non-inflamed and retrocecal. The liver lies 1 cm below the right costal arch and is substernal in the midline. The spleen is not enlarged. There is a very marked gastric dilation, the stomach filling the entire upper abdomen. The duodenum is considerably distended also. Both diaphragmatic leaves are displaced upward, the right being at the level of the third interspace and the left at the fourth rib.

C. The left lung is collapsed, the lower lobe completely and the upper nearly so. Both lobes are involved in an extensive granulating pleuritis, overlaid by much fibrin exudate. This has pulled the heart and great vessels about 3 cm to the left, fixing the mediastinum in that position.

D. The left lung weighs an estimated 400 grams. The lower lobe on section contains a blood clot about 2 cm in diameter, surrounded by a margin of necrotic lung tissue. Adjoining parenchyma is febrotic and collapsed.

E. The liver weighs about 1800 grams. The capsule is smooth and thin. On section the central portions of the lobules have a light color suggestive of necrotic change. Other changes are lacking.

F. The kidneys aggregate 350 grams. They appear somewhat swollen. Their capsules are smooth and on section the cortices bulge upwards. The sectioned parenchyma is a pasty yellow-white in color and grossly quite bloodless. In some of the calyces a few crystals are noted. The pelves are small and unchanged. The ureters are grossly normal. The bladder contains only a few cc of cloudy urine. No crystals are grossly evident.

G. Liver (2 sec): There is a severe focal necrosis of the liver which is essentially central in location and of varying extent up to one-half of the lobule. The liver cells here are acidophilic and show varying degrees of nuclear change, from pyknosis and karyolysis to complete disintegration. They are heavily infiltrated with polynuclears, many of which are necrotic and ragged. The periportal spaces are heavily stuffed with lymphocytes and varying numbers of polynuclears. Eosinophils are absent. The total picture is not that of epidemic hepatitis.

H. Kidney (2 sec): There is a severe internal hydronephrosis, the proximal convoluted tubules being strikingly dilated. The cause of this obstruction is evident in the presence of numerous mucoid, pale-staining reactive casts in the distal convoluted and collecting tubules which show mitotic activity and epithelial hyperplasia at the involved sites. Occasional calcification of the casts is also noted. A peroxidase stain on frozen material fails to tint the casts.

I. In my opinion, the striking liver necroses in this case are the product of sulfonamide administration to which the kidney, and not the clinical record, is witness. None was given at this hospital, and records of the clinical course before that time do not exist in any detail.

J. The cause of the sudden death in this patient is, I believe, the direct result of the severe liver damage. Pateints with acute liver disease are prone to make dramatic exits, although I confess that the exact mechanism in such instances is not apparent to me. What part was played in the final picture by the gastric dilation and, for that matter, the etiology, are debatable subjects.

Clinical and Pathologic diagnoses were:

CLINICAL DIAGNOSES

(1) Wound, penetrating, chest left (sucking)
(2) Thoracotomy and drainage 10 July
(3) " " " 15 July
(4) " " " 18 July
(5) Left pyopneumothorax
(6) Transfusion incompatibility?

PATHOLOGIC DIAGNOSES

(1) Sulfonamide nephropathy, severe
(2) Acute central necrosis of the liver, severe
(3) Wound, penetrating, left lower lung lobe
(4) Atelectasis, massive, left lung
(5) Pleuritis, extensive, left lung
(6) Empyema, drained, left lung
(7) Left mediastinal shift
(8) Basal atelectasis, right lower lobe
(9) Acute gastric dilatation, moderately severe
(10) Thoracotomy wounds, two, left chest
(11) Pallor and emaciation
(12) Venepuncture wounds, both antecubital fossae

Additional diagnoses (microscopic):
(13) Cystic dilation of pancreas, minimal