with his 50 millions every four hours, the result was the same and was very striking and instructive. I have already described the absence of toxic symptoms after the crisis together with the persistence of physical signs in my case, and Raw states regarding his "the physical signs of consolidation were not much influenced by the treatment, but there was a complete absence of toxæmia."

Case II was treated within a few days of the first, but was not got early, the first injection being given on what was probably the 4th day of the disease, whereas the first case was injected within twenty-four hours of the onset.

From my limited experience of only a few cases I am not in a position to discuss dosage, but one looks forward to the publication of Raw's next series of cases and feels sure he is on the right track in endeavouring to abort this most difficult disease. Charts are attached.

## RUPTURE OF THE SPLEEN. OPERA-TION: RECOVERY.

## BY A. FENTON,

MAJOR, I.M.S.,

## General Hospital, Rangoon.

MAUNG SAN SHWE, a Burmese prisoner, aged about 50, was seen in consultation with Captain Knapp, I.M.S., Superintendent, Rangoon Central Prison, on the afternoon of 12th February 1912.

He gave the history of an injury on the left side from a fall on the evening of 9th February 1912. He was in indifferent health and in a special gang.

There was considerable distension of the abdomen, acute pain and tenderness in the left epigastrium, rigidity of the right rectus, and nausea.

The diagnosis pointed to some intra-abdominal injury, and indicated laparotomy without delay. I had him sent down to the General Hospital, and operated at 6-30 P.M. The abdomen was opened by a left rectus incision. It was found full of blood, which was cleared out. The hæmorrhage was traced with some difficulty to a rupture of the spleen near the hilum on the gastric surface.

The spleen was enucleated without special difficulty. It was about twice the normal size.

The drainage tube was inserted in the lower angle of the wound in view of possible oozing.

The man made a good recovery and was sent back to the Jail Hospital on 26th February 1912.

The rupture in the spleen was a comparatively small one, about  $1\frac{1}{2}$  inches long, and  $\frac{3}{4}$  inch deep. This no doubt accounted for the slow hæmorrhage and not very great acuteness of the symptoms. The following blood counts were made before he left the General Hospital :—

(1)	Red ce'ls		3,670,000.	
	White cells		30,000.	
	Polymorphonuclears		85%	
	Small mononuclears		5 25%	
	Large do.		10.25%	
	Mast cells		5%	
	Hæmoglobin		80%	
(2)	About a week later-			
	Red cells		2,472,000.	
	White cells		15,800.	
	Hæmoglobin		75%	
	(No differential co	unt r	nade.)	

On 28th March 1912 the blood count was as follows :---

Red cells		4,140,00	0.
White cells		9,00	0.
Hæmoglobin			70%
Polymorphonuc	lears	***	70.5%
Small mononuel	ears	• •••	23.25%
Large do.			3 25%
Eosinophiles			2.25%
Intermediate		•••	.75%

On 11th May 1912 the count was-

Red cells		3,424,000.
White cells		13,600.
Polymorphonuclears		61.75%
Small mononuclears		26%
Large do.		3.5%
Eosinophiles		5.5%
Mast cells		1%
Myelocytes		5%
Other forms	•••	75%

On 17th July 1912 the count was-

Red cells	 4,085,000.		
White cells	 11,400.		
Hæmoglobin about	 	95%	
	 	47.7%	
Small mononuclears	 	25%	
Large do.	 	67%	
Eosinophiles	 	15.7%	
Mast cells	 	2.3%	
Intermediate forms	 	2.3	
Others	 	•3	

The above counts were kindly made by Sub-Assistant Surgeon Gurudatta Sarin of the Pathological Department in the General Hospital, Rangoon.

The patient has had two attacks of benign tertian malaria since his return to jail.

He is at present in good health: appears fitter than before the operation. The absence of his spleen has not apparently troubled him very much so far.

The high eosinophile count on 17th July may possibly indicate some form of intestinal parasitism.