

studies of lead workers (Cotter¹) showed no significant changes in their blood chemistry, these cases were included in the series. The series is believed to be of interest also because it was possible to follow the patients for many months and to repeat some of the laboratory work.

Briefly, the method employed for quantitating cadmium in blood and urine was based on the fact that dithizone (diphenylthiocarbazone) disintegrates at pH 11 except in the presence of an excess of cadmium.²

REPORT OF CASES

CASE 1.—T. V., a 35 year old white man, worked as a burner of clean and painted steel for seven years. In the process of converting a ship, he encountered numerous cables running through the bulkhead he was clearing, which gave off an irritating gas as he burned them. After

TABLE 1.—Laboratory Data Obtained After the Patient Emerged from Coma

Substance or Test	Amount or Reaction
Blood sugar	74
Serum cholesterol	250
Free cholesterol	98
Cholesterol esters	152
Serum phosphorus	3.2
Serum nonprotein nitrogen.....	33
Serum uric acid.....	7.3
	} mg./100 cc.
Serum calcium	6.1
Serum halogen	108
Serum carbon dioxide.....	25
Serum sodium	143
	} mEq./l.
Serum alkaline phosphatase.....	0.4 Bodansky units/100 cc.
Serum total protein	7.7
Serum albumin	4.7
Serum globulin	3.0
Serum euglobulin	0.5
Serum pseudoglobulins	2.5
	} Gm./100 cc.
Blood cadmium	0.18 mg./100 Gm.
Urine cadmium	0.10 mg./l.
Hematological Findings	
R. B. C.	3,300,000
Hgb.	14 Gm./100 cc.
W. B. C.	5,700
Differential count	
Neutrophils	56
Monocytes	4
Lymphocytes	34
Basophils	1
Reticulocytes	2
	} %

four hours in this atmosphere he had a terrific headache and went into a coma. The plant doctor who saw him made a provisional diagnosis of carbon monoxide poisoning and withdrew a sample of blood under oil which he submitted to one of us (L. H. C.) for analysis when he referred the case for further study. Only 1 vol. per cent of carbon monoxide was found.

When the patient was next seen, he had recovered consciousness. He was sweating profusely, and his pulse and respirations were rapid. There was no congestion of his mucous membranes, no lead line, no abdominal tenderness and no muscle weakness.

1. Cotter, L. H.: Lead Intoxication by Inhalation, *J. Indust. Hyg. & Toxicol.* **28**:44-46 (March) 1946.

2. Church, F. W.: A Mixed Color Method for the Determination of Cadmium in Air and Biological Samples by the Use of Dithizone, *J. Indust. Hyg. & Toxicol.* **129**:34-40 (Jan.) 1947.