Patient #082

Chief Complaint: This 62 year-old white male was admitted for fevers and generalized weakness.

History of Present Illness: Ten years prior to admission, the patient developed pancytopenia. Evaluation included a bone marrow biopsy which revealed refractory anemia. The patient's myelodysplastic syndrome remained indolent throughout the subsequent 10 years. Three months prior to admission the patient developed daily fevers (102-103^{o} F; 39-39.5^{o} C) and fatigue. One month prior to admission the patient presented to an outside hospital for diagnostic evaluation. Examination revealed a temperature of 102.2^{o}F (39^{o} C), diffuse ecchymosis of the extremities, a right inguinal hernia, and a right axillary mass (3 cm in diameter, no fluctuance, slightly tender).

Laboratory values of note:

			Normal
CBC	Hct	27 (with normal indices)	*42-52%*
	WBC	1.4 X10^{9}	*4-10 X $10^{9/L}$*
	Neut	10	*50-75 %*
	lymph's	50	*20-50 %*
	mono	11	*3-10 %*
	bands	29	*0-15%*
Chemistries	protein, total	7.2	*6.0-8.3 g/dl*
	albumin	3.6	*3.5-4.9 g/dl*
	LDH	318	*60-200 U/L*

Urinalysis: WNL

Chest X-ray : right pleural effusion,

Sinus films: within normal limits

The patient was started on empiric vancomycin, tobramycin, and ticarcillin after blood cultures were obtained. The patient required four transfusions of packed red blood cells during the hospitalization (which lasted for four weeks). Due to progressive fevers and debility, multiple

blood and urine cultures were obtained, which were all negative. To evaluate the anemia, a bone marrow biopsy was obtained which revealed refractory anemia with excess blasts but was otherwise unremarkable. Due to progressive pancytopenia, G-CSF therapy was initiated with a satisfactory response (WBC = 3.8x 10^9/L with normal absolute neutrophil count). The right axillary mass was drained--cultures grew Staph. epidermis, which was sensitive to clindamycin. The patient's antibiotics were changed to clindamycin monotherapy and the wound healed unremarkably. Due to persistent fevers, a repeat chest x-ray was obtained which revealed infiltrates at both bases and an increasing right pleural effusion. PPD with anergy panel revealed that the patient was anergic. CT scan of abdomen and pelvis revealed the right pleural effusion, ascites, "congestion" of the mesenteric and peritoneal fat, several "benign" hepatic cysts, and a "benign" cortical calcification of the left kidney. There was no lymphadenopathy. Thoracentesis of the right pleural space: 750 cc bloody fluid; analysis revealed pH 7.73, protein 4.5, LDH 488, amylase 43, triglycerides 39, glucose 244, WBC 81(24S, 61L, 15M), RBC 150,00. Routine bacterial, AFB, and fungal cultures were negative as was cytology. Fevers persisted. Follow-up chest x-ray revealed enlarging right pleural effusion. Echocardiogram was normal. Due to increasing ascites, a paracentesis was done which revealed 1000 cc of bloody fluid. Analysis: WBC 1100`(15S, 60L, 21M, 4H), RBC 11,600, glucose 187, LDH 623, protein 4.7, albumin 2.3 (serum albumin 2.9). Routine bacterial, AFB, and fungal cultures were negative. Cytology was negative. Gallium and indium scans were unremarkable. At the end of this four week period of hospitalization the patient had a repeat thoracentesis and paracentesis due to persistent fevers and rapidly accumulating effusions. Results were similar to those previously obtained. The patient was then transferred to the tertiary care hospital for further evaluation.

At the time of admission, the patient complained of weakness, fatigue, and fevers. He denied: headache, stiff neck, cough, dyspnea, sore throat, chest pain, abdominal pain, back pain, gastrointestinal symptoms, urinary symptoms, rash, joint/muscle symptoms.

Previous Medical History include myelodysplastic syndrome, NIDDM(10 years, diet controlled), hypertension (10 years).

Medications: G-CSF, verapamil, pericolace, no known drug allergies.

Social History: no travel, no pets, no exposures, no one else sick at home. Has lived in the same town for his adult life and is a retired factory worker.

Family History was unremarkable.

Physical Examination: an anxious man in no apparent distress. Vitals signs were 150/70, pulse 100, respirations 18 and temperature 102.2^{o} F (39 ^{o} C). There was bitemporal wasting. Lungs exam revealed decreased breath sounds at right base with dullness to percussion, crackles 1/2 way up on right, egophony on right, crackles 1/4 way up on left. Cardiovascular system was within normal limits. Abdomen was distended, with tense ascites, a right inguinal hernia (reducible), and normal bowel sounds. Rectal exam was within normal limits. GU exam showed circumcised penis, atrophic testicles. Extremities exam: 1+ pedal edema, multiple ecchymoses of various sizes. Neurological exam was within normal limits.

Laboratory Data:

			Normal
CBC	Hct	28 with normal indices	*42-52%*
	WBC	6.3	*4-10 X $10^{9/L}$*
	Neut	83	*50-75 %*
	lymph's	6	*20-50 %*
	mono	4	*3-10 %*
	bands	4	*0-15%*
	platelet count	85	*200-400 X 10^{9}/L*

			Normal
Chemistries	sodium	129	*136-146 mmol/l*
	potassium	3.5	*3.5-5.0 mmol/l*
	chloride	90	*99-111 mmol/l*
	CO2	27	*24-34 mmol/l*
	creatinine	1.7	*.9-1.3 mg/dl*
	BUN	27	*8-20 mg/dl*
	glucose	153	*73-115 mg/dl*
	protein, total	6.6	*6.0-8.3 g/dl*
	albumin	2.9	*3.5-4.9 g/dl*
	bilirubin, total	0.6	*.1-1.1 mg/dl*
	AST (SGOT)	49	*2-35 U/L*
	ALT (SGPT)	39	*0-45 U/L*
	LDH	479	*60-200 U/L*
	ALP	151	*30-130 U/L*
	PT	WNL	*10-13 sec.*
	APTT	WNL	*20-30 sec.*

Urinalysis: 1.020, 5/0, 3-5 RBC, 0-3 WBC, no casts.

Urine gram stain: normal.

ABG: (on room air): 7.47/32/72/95%

Chest X-ray :large right pleural effusion, layers on decubitus view.

Abdominal X-ray: Questionable ascites, otherwise unremarkable.

Course: Blood, urine, and sputum were cultured, and thoracentesis and paracentesis were performed. All culture specimens were normal, including routine bacterial, AFB, and fungal stains and cultures. Fluid cytology was unremarkable. Biochemical analysis and cell counts were similar to those obtained at the outside hospital. ANA, rheumatoid factor, C3, C4, CH50 were all normal.

Repeat CT scan of the chest, abdomen and pelvis: remarkable for the pleural and peritoneal effusions and for omental thickening consistent with carcinomatosis or inflammation.

CT guided needle aspiration of the omental mass revealed atypical lymphoid cells suspicious but inconclusive for lymphoma. Flow cytometry revealed a heterogeneous population of lymphocytes.

Due to the increased rate of effusion accumulation, the patient required large volume (4-5 liters) thoracentesis and paracentesis every one to two days. All cytologies and cultures (routine, AFB, fungal) were negative. esophagogastroduodenoscopy and colonoscopy were normal. Fevers, hypoalbuminemia, and cachexia progressed.