

FIGURE 1

A: Liver scan with [^{99m}Tc]colloid (Budd-Chiari syndrome): Hepatomegaly and slight splenomegaly with marked concentration of activity in the caudate lobe with decreased uptake in the right lobe (anterior view). B: Scintisplenoportography with ¹³³Xe (Budd-Chiari syndrome) shows the splenic and portal veins with no evidence of prehepatic obsruction. C: On a later image in the dynamic series, cephalad and caudad collaterals (arrows) were demonstrated with concentration of ¹³³Xe in the caudate lobe.



 Kroiss A, Peschl L, Erben WD, et al. Measurement of hepatic blood flow with xenon-133. In: Nuclear medicine and biology. Vol. 2. New York: Pergamon Press; 1982:2252-2254.

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REPLY: The case reported by Dr. Kroiss et al. is a fine example of what one may expect to see on [^{99m}TC]colloid scan with typical Budd-Chiari syndrome. Their use of ¹³³Xe scintisplenoportography (1) to demonstrate splenic vein patency, abnormal collaterals, and abnormal hepatic flow is most interesting; however, as they mentioned, this technique should prove useful primarily in cases of total hepatic vein obstruction which may occur in most (63%) but certainly not all Budd-Chiari cases (2). Another interesting subset of patients would be those presenting with large segmental perfusion defects. This pattern may be encountered in as many as 6–7% of cases (2) and it would be interesting to try to demonstrate objectively and quantify the differential xenon outflow among the



right and left hepatic lobe. Undoubtedly, however, this technique would lack resolution and sensitivity for small segmental abnormalities.

References

- Kroiss A, Peschi L, Erben WD, et al. Measurement of hepatic blood flow with xenon-133. In: Nuclear medicine and biology, Vol. 2. New York: Pergamon Press, 1982:2252-2254.
- 2. Picard M, Carrier L, Chartrand R, et al. Budd-Chiari syndrome: typical and atypical scintigraphic aspects. J Nucl Med 1987; 28:803-809.

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Medical Treatment of Radiation Sickness

TO THE EDITOR: The excellent articles by Dr. Edward Webster (1) and Ms. Linda Ketchum (2-3) on the Chernobyl accident highlight the fact that, as yet, little is known about

etiologic treatment of radiation sickness. This paucity of knowledge despite the countless studies of radiation effects since Roentgen's observations in 1896. The relatively ineffective symptomatic approach only fuels the hysteria about the biologic effects of low levels of fallout or diagnostic radioisotopes. Thus the need for a concerted effort to establish a more informed image of nuclear effects and applications.

The psychologic fallout of Chernobyl emphasizes some issues for the Committee on Radiobiologic Effects of the Society of Nuclear Medicine and suggests that the JNM encourage submission of articles on basic and applied research into the treatment of radiation sickness.

References

- Webster EW. Commentary: Chernobyl predictions and the Chinese contributions. J Nucl Med 1987; 28:423–425.
- Ketchum LE. Lessons of Chernobyl: Health consequences of radiation released and hysteria unleased, Part I. Physicians examine their role in planning response to nuclear accidents. J Nucl Med 1987; 28:413-422.
- Ketchum LE. Lessons of Chernobyl: SNM members try to decontaminate world threatened by fallout, Part II. Experts face challenge of educating public about risk and radiation. J Nucl Med 1987; 28:933-942.

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REPLY: Dr. Hartwig is correct in describing the treatment of radiation sickness as a "symptomatic approach." This has long been practiced by radiotherapists who are the physicians most experienced in dealing with the symptoms of mild radiation sickness. Reviews of more intensive treatment including bone marrow transplants in persons who have received near-lethal exposures appear in several works including the recent revision of the Health Effects Model published by the Nuclear Regulatory Commission (1) and the book by Hübner and Fry (2). There are of course few instances of accidental exposure where such treatment has been indicated; Chernobyl being the largest to date.

Many have suggested that nuclear medicine physicians should be informed on the medical management of these rare accidents along with hematologists and radiotherapists. However, because nuclear medicine more generally concerns whole body doses that are orders of magnitude below the "radiation sickness" threshold, publication in the JNM of research on these high dose effects would clearly be of marginal interest for the practicing nuclear medicine physician in my view. Of more importance to the Society would be the continuation of the public relations effort to dispel the uninformed fear surrounding radiation doses of the order of 1 rad.

References

- Evans JS, Moeller DW, Cooper DW. Health effects model for nuclear power plant accident consequence analysis. Washington, DC: U. S. Nuclear Regulatory Commission; 1985:NUREG/CR-4214.
- Hübner KF, Fry SA. The medical basis for radiation accident preparedness, Section III. New York: Elsevier/ N. Holland, 1980.

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Correction: Amendment to Author Line

In the letter "Skeletal Tuberculosis Resembling Metastatic Disease on Bone Scintigraphy," (*J Nucl Med* 1987; 9: 1507– 1509), James J. Smith, MD, should be included in the list of authors, following Elmo Acio.

Correction: Article Corrections by Edward A. Deutsch

In the article "Development of Nonreducible Technetium-99m(III) Cations as Myocardial Perfusion Imaging Agents: Initial Experience in Humans," (*J Nucl Med* 1987; 28:1870– 1880), Luigi Zecca should appear in the author line following Fabio Columbo.

In the article "In Vivo Inorganic Chemistry of Technetium Cations," (*J Nucl Med* 1987; 28:1491–1500) the captions for Figures 4, 5, and 6 were inadvertently switched. The caption appearing as Fig. 6 belongs with Fig. 4: the caption appearing as Fig. 4 belongs with Fig. 5; the caption appearing as Fig. 5 belongs with Fig. 6.