activity may be located peripherally and may even disappear as the patient is serially scanned. This disappearance is presumably due to the radiopharmaceutical leaking into the hemorrhagic or cystic core.

The effect of this sign on the course of therapy has not been adequately stressed. Recently we have seen four patients with hemorrhagic or cystic glioblastomas in whom this sign was of therapeutic importance. There was a region of decreased activity within the lesion on scan and the cerebral arteriogram suggested a neoplasm. Since he was alerted to the likelihood that this lesion might be a partially liquified necrotic, hemorrhagic, or cystic area, the neurosurgeon altered his approach to the case. He decompressed the space-occupying lesion by aspirating with a needle rather than making a larger cortical incision, thereby decreasing damage to normal brain tissue.

In another case with a temporal lobe mass and "doughnut" sign the cerebral arteriogram revealed an avascular mass thought to represent either a tumor or an abscess. The neurosurgeon (ESK) aspirated necrotic purulent material and without further surgery made the diagnosis of a cerebral abscess. Subsequently, the patient recovered from a profound aphasia and now speaks with only sporadic dysnomia.

The physician practicing nuclear medicine should be aware of the importance of reporting any variation in intensity of radioactivity within an abnormality on brain scan, whether centrally or peripherally located. Neurosurgeons are always grateful for this added information.

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ASEPTIC MENINGITIS FOLLOWING ISOTOPE CISTERNOGRAPHY

Personal experience as well as two recent articles (*1,2*) suggest that sporadic aseptic meningitis following intrathecal injection of human serum albumin may be due to chemical contaminants for which the human theca is a more sensitive biologic test than the official pyrogen tests routinely conducted as required by commercial suppliers of the radiopharmaceuticals. With the development of the Limulus test, a more sensitive test for bacterial endotoxin (pyrogen) (*3,4*), the hope of finding a better screening test for the offending product has been given fresh energy. Since the most definitive test of serious pyrogenicity for man is the development of aseptic meningitis, we hereby issue a plea to those investigators and clinicians whose patients develop aseptic meningitis following diagnostic intrathecal injection of radionuclide-labeled human serum albumin (or indeed any other intrathecal tracer) to send the vial to us for testing by the Limulus method along with the information contained in their "Adverse Reaction" report. The reported incidence of this reaction is low; therefore we need broad participation in this effort to build up a significant number of observations.

Please send the sterile vials in appropriate packages to Division of Nuclear Medicine, Georgetown University Hospital, Washington, D.C. 20007. For information call Dr. Harbert at (202) 625-7492.

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DISTORTION PRODUCED BY PINHOLE COLLIMATORS

Fink, et al (*1*) have clearly demonstrated a major difficulty inherent in the use of pinhole collimators with a scintillation camera. The uniformity distortion to which they refer was first alluded to by Mallard, et al (*2*) who indicated that the point source sensitivity for a pinhole collimator varies both in-