

T.B. Steinhausen, working alongside Strain and Warren at the University of Rochester, conducted his doctoral thesis, *funded by Eastman Kodak*, on iophendylate.

His rat and dog studies compared the use of Lipiodol with that of the new dye.

He presented his findings at a 1942 meeting of the Radiological Society of North America and they were later published in the journal *"Radiology"* in 1944.

At the meeting, during the discussion, it was concluded that

*"the toxic potentialities of the two drugs are the same."*

In fact, these studies showed that the new compound did produce cysts as Lipiodol did, but that they were smaller.

There was also a *"physiological response about the cysts"* which was attributed to *"a foreign body reaction"*, occasioning *"a period of slight fever lasting one or two days."*

Nevertheless, in his paper, Steinhausen concluded

*"With the assurance from these experimental studies that the new medium was safe, it was first tested clinically on Nov.23, 1940, by Drs. Paul Garvey and Nathaniel Jones."*

Despite military restrictions on its use, Pantopaque was in fact used on civilians.

Negative clinical experiences (Rigler) were ignored in favour of more positive ones from military personnel such as Spurling.

Also in 1942, Van Wagenen gave a presentation to the Harvey Cushing Society ([\[1\]](#)), stating clearly that iophendylate caused a chemical meningitis as severe, or possibly more so, as that from Lipiodol.

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[\[1\]](#) Van Wegenen WP, May 19, 1942, New York Meeting of the Harvey Cushing Society, (Ethyl iodophenylundecylate) A New Contrast Medium for Visualisation of the Subarachnoid Space