Up to 1972, **Glaxo** in the UK sent a list of known adverse drug events, which included death, pyrexia, allergic reactions, arachnoiditis (1971 saw an increased incidence of severe arachnoiditis

"Present batch seems to be unusually irritating"

Snell, Glaxo).

In 1972, **32** adverse events of various severity were reported, all of which refer to symptoms such as those seen in arachnoiditis.

In 1972, ionic water-soluble contrast media were introduced: Conray and Dimer X.

They were more prone to immediate side effects than iophendylate, and caused

"very frequent radiological arachnoiditis"

which was

"occasionally implicated as a cause of symptoms."([1])

Meanwhile other papers began to appear in the medical literature:

Imielinski and Chmielewski ([2]) (in French) wrote about intraspinal arachnoiditis following myelography with **ethiodane** (Pantopaque).

Mayher et al. ([3]) described acute meningeal reaction following Pantopaque myelography.

We can also note that Pantopaque was being used at that time for other radiographic procedures and even treatment of renal and hepatic cysts. ([4])

Jakobsen ([5]) concluded from his rat study

"The performance of pantopaque myelography results in an inflammation of the leptomeningea even if the bulk of contrast medium be removed after the investigation and even if admixture of blood to the contrast medium be avoided. The possibility furthermore cannot be excluded that larger amounts of pantopaque have a damaging effect on the spinal cord. The amount of pantopaque used should be as small as possible."

In 1972, Epstein ([6]) wrote about techniques for removal of the dye, and a further paper on the subject was published in 1974 by Keirns and Wiltse. ([7])

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[1] Statement on Myodil, Royal College of Radiologists 1991.

[2] Imielinski BL, Chmielewski JM. *J Radiol Electrol Med Nucl*. 1971 Jan-Feb; 52(1): 31-4. [Intraspinal adhesive arachnoiditis following myelography with ethiodane (pantopaque)]

[3] Mayher WE 3rd, Daniel EF Jr, Allen MB Jr. J *Neurosurg*. 1971 Mar; 34(3): 396-404 Acute meningeal reaction following Pantopaque myelography.

[4] Vestby GW. *Acta Radiol Diagn (Stockh).* 1971 Sep; 11(5): 529-44. German [Percutaneous treatment of renal cysts. The triple contrast or pantopaque method]

[5] Jakobsen *Acta Radiologica (Diagnosis)* 1973; 14(6): 638-646 Clinical evaluation of a histological examination of the side effects of myelographic contrast media.

[6] Epstein BS, Epstein JA. *Radiology.* 1972 May; 103(2): 353-8. The siphonage technique for removal of Pantopaque following myelography.

[7] Keirns M, Wiltse LL. *Clin Orthop*. 1974;0(103): 64-5. Improved technique for injecting and removing pantopaque in myelography