

Adhesive arachnoiditis is not a notifiable disease and is significantly under-diagnosed.

During the Proceedings of the British House of Commons, March 25th, 1998, the issue of arachnoiditis due to Myodil was raised.

In answer to the question of the number of cases within the last 20 years, the Under-Secretary of State for Health replied "the information requested is not available" ([ii](#)).

The 2001 New Zealand report by Day et al ([iii](#)) stated:

"It was not possible to calculate the actual population-based incidence or prevalence of arachnoiditis in any form as the clinical data was not available."

Expert Dr. Charles Burton, of the Institute of Low Back and Neck Care, Minnesota, has written extensively about arachnoiditis, and ([iii](#)) has attempted to suggest an estimated figure for cases in the US, using results of an international study that showed lumbo-sacral adhesive arachnoiditis to be responsible for about 11% of all Failed Back Surgery Syndrome cases.

Tying this in with the number of surgeries performed in the last 50 years, and an average rate of 25% FBSS, he estimates

"at least 1,000,000 FBSS cases in the US would then have been causally and primarily due to the production of lumbo-sacral adhesive arachnoiditis. If one brings in the rest of the world the case estimate would have to be doubled."

Dr. Burton also suggests that between 1940 and 1980 about 450,000 oil-based myelograms were performed in the US every year, giving a total of 19 million*, of which he estimates 5% sustained clinically significant adhesive arachnoiditis (although probably all had anatomical arachnoiditis) as a result, which gives a figure of 950,000 sufferers in the US alone.

Dr. Feffer, in a paper in 1978, suggested that arachnoiditis may occur in about a quarter of people undergoing an oil-based myelogram and for those having two or more of these procedures, there is as much as a 50% risk of arachnoiditis.

* A promotional leaflet from Lafayette, the US manufacturers of oil-based myelogram dye (iopendylate: Pantopaque), contained the message: "Proven over and over in more than 15 million exams."

Prevalence of arachnoiditis of other aetiology is even less easy to come by.

The anaesthetist Dr. J. Antonio Aldrete recently published an article entitled "Neurological deficits and arachnoiditis following neuraxial anesthesia" ([\[iv\]](#)) in which he noted:

"Attempts to identify the frequency with which neurological deficits occur after regional anesthesia have been met with certain scepticism, as a result of the lack of standardized data...and/or recognition of pre-existent neurological diseases."

In his conclusion, Aldrete states:

"The symptomatology...and the presence of neurologic deficit along with confirmation of arachnoiditis by MRI usually imply that injury to one of the neural structures located intrathecally has taken place. There is need to determine its incidence and all other factors that may render a patient a susceptible candidate for this complication."

Nelson and Landau, in their paper on intraspinal steroids ([\[v\]](#)), remarked:

"it can be estimated that only **0.15%-0.2%** of adverse drug reactions will be reported to

the FDA.

For every reported complication there are probably **400-600** unreported cases! Less than 1% of adverse reports are ever reported in the literature.

We must conclude that adverse drug reactions of intraspinal steroid therapy submitted to the FDA (and especially individual case reports in the literature) comprise only the "tip of the tip of the iceberg."

Elsewhere([\[vi\]](#)), Nelson has estimated that given an assumed a maximum of 6% inadvertent spinal taps from epidurals and 20% of patients following intrathecal injections develop clinical arachnoiditis (based on the study by Johnson et al. [\[vii\]](#)), the theoretical incidence rate is 1.2%.

This figure is considerably higher than data on reported complications suggests.

Burton has called the condition a 'scientific orphan'. In his Burton Report of June 2000([\[viii\]](#)), he stated:

"There exists no area of medicine today where greater, or more cruel suffering has been produced...than that causally related to adhesive Arachnoiditis... this disease entity remains essentially unknown, unreported and unrecognised."

[\[i\]](#) Official Report 12 January 1998: Vol.304,c.152

[\[ii\]](#) Day PL Arachnoiditis: A brief summary of the literature NZHTA Report 2001

[\[iii\]](#) Burton CV, Internet article "Adhesive arachnoiditis: The Global Economic Liability" 1997

[iv] Aldrete JA *Acta Anaesthesiol Scand* 2003; 47:3-12 Neurological deficits and arachnoiditis following neuraxial anesthesia

[v] Nelson DA, Landau WM *J Neurol Neurosurg Psychiatry* 2001; 70:433-443 Intraspinal steroids: history, efficacy, accidentality, and controversy with review of United States Food and Drug Administration reports.

[vi] Nelson DW *Spine*, 1993; 18: 278-286. Intraspinal therapy using methylprednisolone acetate. Twenty-three years of clinical controversy.

[vii] Johnson, A., Ryan, M. D., & Roche, J. *Medical Journal of Australia*, 1991; 155: 18-20. Depo-Medrol and myelographic arachnoiditis.

[viii] Burton CV Internet publication <http://www.burtonreport.com>