

"I know that most men can seldom accept even the most obvious truth if it would oblige them to admit the falsity of conclusions which they proudly taught to others, and which they have woven, thread by thread, into the fabric of their lives." Leo Tolstoy

As Rachel Carson wrote:

"if having endured much, we at last asserted our 'right to know' and if, knowing, we have concluded that we are being asked to take senseless and frightening risks, then we should no longer accept the counsel of those who tell us that we must fill our world with poisonous chemicals, we should look around and see what other course is open to us."

It is recognised that arachnoiditis most commonly arises from medical procedures such as surgery, myelograms and epidural injections. Data on the incidence of clinically significant chemically-induced adhesive arachnoiditis has not, to date been available.

When it was originally described over 100 years ago, adhesive arachnoiditis was predominantly a disease of the thoracic spine due to infections such as tuberculosis. Nowadays it is most common in the lumbar region, and also seen in the cervical region, whereas thoracic arachnoiditis has become uncommon. This trend results from the influence of iatrogenic causes.

Surgery tends to cause localised arachnoiditis, whereas chemical insults such as myelograms and epidural injections give rise to a more diffuse picture, due to their spread along the cerebrospinal axis.

Aldrete includes in his book **"Arachnoiditis: The Silent Epidemic"**; a brief recap on the causative factors, shown in a small table, with percentage figures for each factor. He has drawn these figures from what he describes as "a systematic and careful anamnesis" involving 162 patients.

3.7% of the cases were due to a myelogram performed before 1986

(I.e. inferred as using oil-based dye) whilst 16% resulted from a combination of myelogram and spinal surgery. 27% resulted from laminectomy, with a further 16%, 10% and 19% for other surgical techniques.

3.7% of his cases involved spinal anaesthesia with 5% lidocaine, with 1.8% due to "epidural anaesthesia with documented parasthesia". Epidural blood patch was the causative factor in a further 1.8% of the patients.

In 1999, Dr. Charles Burton, Director of the Institute for Low Back and Neck care in Minnesota, wrote a paper entitled: "The Subarachnoid Space: 'Salum Sanctorum' or Toxic Dump?"([ii](#))

He describes the subarachnoid space as a "very delicate and fragile structure,"... "The true 'salum sanctorum' of the human body" and states that "this fragility allows only a slight tolerance for insult."

This concurs with Oldberg's statement in his 1940 paper ([iii](#)), (entitled "A Plea for Respect for Tissues of the Central Nervous System"):

"Certainly to inject a substance like alcohol* directly into the spinal fluid, with the attendant

risk to conus, cauda and arachnoid, should be regarded as a major clinical decision. One wonders what will happen to these structures in ensuing years, when the inevitable fibrosis initiated by incautious and unwarranted injections progresses."

Burton goes on to state:

"The adverse sequelae relating to the introduction of foreign body substances into the body's 'salum sanctorum' remains a game of chance for the patient."

As Aldrete has explained in his recently published book, "Arachnoiditis, The Silent Epidemic", the subarachnoid space appears to be particularly vulnerable to toxicity because of the baricity of the substances injected, the slow rate of their removal from the spinal fluid into the bloodstream (part of the reason why intrathecal morphine is regarded as advantageous to systemic administration as side-effects such as sedation and nausea are reduced), the closed compartment is constrictive and may allow "greater loculation and fixation of some of these substances", and lastly, the circulation rate of the CSF is relatively slow.

[\[i\]](#) Burton C Internet publication 1999

[\[ii\]](#) Oldberg E *Surgery Gynecology & Obstetrics* 1940 Vol 10:724-5 A Plea For Respect for the Tissues of the Central Nervous System.