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Post Varicella Thrombosis

We report a case of extensive thrombosis in a 12 year old boy, who had varicella 15 days earlier. The child presented with headache and generalized tonic clonic seizures for 2 hours. On examination, he had healed scars of varicella. Neurological examination revealed a Glasgow Coma Score of 9/15. CSF analysis, complete blood counts, RFT, LFT, blood sugar, serum electro-lytes, PT and APTT were normal. CT Brain revealed multiple areas of hemorrhage with perilesional edema involving bilateral parietal and left frontal region. The child was started on anticonvulsants. Magnetic resonance venography of brain revealed superior sagittal and bilateral transverse sinus thrombosis. Prothrombotic screen (Protein S, Protein C levels, Factor V Leiden Mutation, Anti-thrombin III levels and anti - cardiolipin antibodies) was planned, but could not be done due to financial constraints.

The child was started on LMW heparin along with oral anticoagulants. The child's sensorium improved gradually over 5 days. On day five of admission, he developed left leg pain with swelling. Doppler study revealed extensive thrombosis of left external iliac, femoral and popliteal veins. He improved with limb elevation and analgesics. He was discharged on anticonvulsants and oral anticoagulants maintaining an INR of 2-3. On follow up there are no neurologic sequelae or subsequent

episodes of thrombosis. Fresh frozen plasma was not used in child as the response to the above treatment was satisfactory.

The incidence of serious complications after varicella infection is 8.5/1 lakh population(1). Thrombotic complications are known especially involving the cerebral vasculature(2). Eidelberg, *et al.*(3) suggested that virus mediated endothelial injury promotes local thrombosis but transient deficiency of protein S activity (due to induction of anti-protein S auto antibodies) is also a causal factor(4,5). These antibodies persist for only a few months. The frequency with which antibodies to proteins S are induced in children during varicella infection is unknown. Thrombosis is more common in individuals with Factor V Leiden, which is a factor V variant resulting from a single point mutation. It increases the risk for thrombosis as it confers resistance to activated protein C [5]. Prognosis in post varicella thrombosis is good. A prothrombotic screen after recovery, to diagnose hereditary prothrombotic states that need life long anticoagulants, is advisable.

**Padmasani Venkat Ramanan
and Kanav Anand**

*Department of Pediatrics,
Sri Ramachandra Medical College,
Porur, Chennai 600 116, India.*

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Safe Disposal of Used Sharp Objects

The recent epidemic of hepatitis B in Modasa, Gujarat, should be a wake-up call for us in the medical profession and we must ensure that as medical practitioners, we do not use needles unsafely. However, there is another aspect which we as professionals continue to completely ignore – disposing used sharp objects. Our patients with diabetes, especially type 1 diabetes, do home self-testing of their blood sugars frequently and many of them are also on insulin. Most of them discard used sharps (syringes, pen needles, and lancets) into the dustbin, to mingle with the general garbage, from where they can be recovered and resold. Some of them, who are a little more aware, break-off the needles from the insulin syringes before discarding them. These tiny (30 or 31G) needles are then a danger to the poor rag-pickers who are often children, and certainly cannot afford expensive treatment to remove embedded needles. The problem is enormous, as even a crude back-of-the-envelope calculation would show. If even 0.5% of our one billion population uses just two insulin syringes and two lancets a year, one crore syringes and one crore lancets are being discarded annually. Unfortunately, insulin syringe manufacturers or lancet makers have not bothered to make any attempt to market devices like *Safeclip*, which are standard in western countries, for use by individual

patients or small volume users.

For the last several years, I have been trying to somehow make *Safeclip* available to my patients, but the lack of availability and the cost have been impediments. For the last two years, I have been teaching my patients that before they throw away the insulin syringe/ pen needles, they should break the needles off and put them into empty shampoo bottles with very tiny holes: even a 50 cc bottle could take the needles of several years. Similarly, I advise them to collect the lancets, after separating them from their covers, into any bottles made of thick plastic (e.g. shampoo bottles); and when full, to discard these bottles containing the sharps after wrapping them well with a few layers of ducting tape. Repeated reminders are required as levels of awareness are low, and safe disposal is not mandatory. I request them to bring the disposal bottles on their visits to make sure they are actually following this important advice.

These plastic bottles would anyway end up as garbage, so there is no problem with either cost or availability. I am finally in a position of being able to teach all my patients, whether rich or poor, that they must dispose off sharps safely. These simple methods can be practised in any corner by anyone, as it does not require manufacturing, money or marketing, just some education and awareness.

Anju Virmani

*Apollo/Max/Sunderlal Jain Hospitals,
New Delhi, India.*