From the Editors Desk:

General Surgery under Local anaesthesia: (continued...)

Diabetic foot gangrene require a lot of effort and patience. They are usually fed up with hospitals visits and are chronically ill. Financially also, there is a constant drain of funds, for some of them. For them, Day Surgery works out very well.

We use the effects of the disease to out advantage. The neuropathy allows us to operate with minimal anaesthesia and the vasculopathy allows us to discharge the patient on the same days. Infection and high sugars can be managed by your diabetologist on an OPD basis. Which, reduces the cost considerably.

LA blocks, if used, should be without adrenaline, where end arteries are involved. When infiltrative anaesthesia is used, with adrenaline mixture, can be used.

These pictures are some examples:

This was a female patient, who had injured her nail while cutting them with a clipper and did not have her sugars under control, resulting in infection and ultimately, gangrene. Now, the vascular system, we must understand, becomes very narrow as it comes down to the toes and fingers. Therefore, infection and related oedema of the tissue is enough to cut off the blood supply. In the initial stage, control of infection and sugar, along with hyperbaric oxygen therapy, would prevent gangrene to a great extent. On the upside, sacrifice of a toe to save the leg is a small price to pay.

Patients are always warned that there may be bleeding from the wound, which is usually collected, and how to manage it. In case it is more, then to come back to the center or contact their family physician.

Several other surgeries have been performed under local anaesthesia on a case to case basis. Some of them, I would like to share with you.

A Parotid cyst, very superficial, was operated under local infiltrative anaesthesia. With CT scan and other routine investigations in hand, as well as with the knowledge that, if required, we could give GA, we were able to completely excise the cyst and discharge the patient on the same day, without any neurological deficit. Mind you, this was our second case only and a very co-operative patient. To whom, detailed explanation was given.

Some pictures I share with you:

Another case which is worth mentioning, was a case of Basal Cell Carcinoma on the forehead. Wide excision of the lesion with full thickness skin grafting was done in the same sitting. Fortunately, no metastasis were found and the patient is doing well after a five year follow-up, without chemotherapy. Full thickness skin graft was harvested from the abdominal fold. Excision of growth and suturing of graft was performed under infiltrative anaesthesia. The last of the four pictures is the latest, after 5 years. But then, this is a possibility, not a rule.
Lymph node biopsy though considered as a minor procedure, and performed under local anaesthesia, should always be approached with caution. This is mainly because of the presence of the neuro-vascular supply along with the lymphatics and nodes. Cervical lymph nodes are the most commonly operated upon as a routine, these are considered as superficial than axillary, which are slightly more difficult to excise. Inguinal lymph nodes are the most superficial and relatively easier to excise. Supra-clavicular lymph nodes are know to be associated with quite a few surgical mishaps. Nodes below to the sterno clido mastiod muscle require the cutting of the muscle itself to reach the node, if they are large. My experience, it is always advisable to have an anaesthetist stand by when in doubt, and take adequate incision, even though if it means bigger scar on the neck. It is better to be safe than struggle during surgery.

Cold abscesses, superficially, can also be tackled under local and sedation. Here, usually, attempt is not made to completely remove the node, just to drain, curet and pack. Unless it can be removed comfortably, the diagnosis and medication will help in ‘dissolving’ the remaining node.

Well, in concluding the series of newsletters on possibilities of surgeries under local anaesthesia, I have tried to give a wide range of general surgical cases that are being done, routinely. Some are an established method of preforming these procedures, some are not so common. All in all, they have tremendous application in expert hands. With due care in case selection and adequate precautions, LA with sedation are a good tool in surgeons hand. We need to remember a few points.

While using LA, safety of the drugs used can be increased by taking into consideration the following:
1) Calculate the maximum dose by taking patients body weight into consideration. Keeping in mind that 1% of solution contains 10 mg of substance per ml. And do not exceed the maximum dose.
2) When using two combination of drugs, the proportion of maximum dose of each drug to be used, must be calculated separately. Then the combined safety will be evident.
3) Use the finest needle available to inject and inject slowly. Aspirate before injection, especially when near vascular structures.
4) Avoid bolus of more than 5 ml in one place. Keep moving the needle’s direction to achieve uniform distribution.
5) Divide the maximum dose into two and use only half for the initial block and infiltration, the rest can be used during surgery.
6) Talk to the patient while injecting and keep reassuring them.
7) Have trained staff with you to monitor the patient, a stand by anaesthetist would be ideal.
8) Monitoring equipment should always be used, especially for pulse and oxygen saturation.
9) Wait for the local to act, test its effect before starting the procedure. If required, more can be injected. Remember, patient’s perception to touch and pressure will remain, only pain sensation is blocked. Therefore, they will feel that you are doing something, but, not feel the pain.
10) Emergency equipment for any eventuality should be available and ready to use, if required.

While considering using local anaesthesia, few main disadvantages should always be taken into consideration. We must keep in mind that LA is not suitable for all patients, obesity, is one condition, where, there is technical difficulty in performing surgery and the dosage requirement is more due to large fat content. Children and patients who cannot stay still. And not every surgeon is familiar or confident of using LA techniques. They are also not comfortable in operating on an awake patient. It requires great amount of confidence and patience in initiating and operating under local anaesthesia. Also, surgeons have to develop skills in judging weather the patient in question is a suitable candidate for surgery under LA. They need proper counseling, and allaying fear of the procedure. Therefore, the surgeon first has to be convenience and confident of the use of LA, only then, he can convince his patient.

- Dr. T. Naresh Row

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