

Management of Side Effects and Adverse Reactions from Injection of Phosphatidylcholine

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Although the injection of phosphatidylcholine (PTC*) for the reduction of fatty deposits enjoys an excellent safety profile, physicians and patients must understand the expected adverse effects. This brief article is meant to review some general safety protocols as well as issues specific to the treatment of fatty deposits with PTC (PTCtx).



46 year old woman before PTCtx

Vasovagal syndrome.

First, let's discuss a psychosomatic reaction called vasovagal syndrome. Any injection can elicit vasovagal syncope. PTCtx can involve up to 200 injections, therefore during treatment it is of utmost importance to instruct patients to immediately alert you as to if they begin to feel dizzy or nauseated. If they do, immediately discontinue injecting and administer pure oxygen by mask at 4-8 liters per minute. This may prevent loss of consciousness secondary to vasovagal syncope. Loss of consciousness may lead to loss of urine on the treatment table and in some cases seizure. It is advisable to always ask patients if they have eaten before the procedure and to have some type of healthy sugary snack such as raisins available. It is my experience that patients who are hungry experience vasovagal syncope more frequently than those who have eaten within several hours before the treatment.

As long as the patient is lying down, loss of consciousness and even seizures are for the most part not dangerous, just unnerving to watch. However, loss of consciousness from a standing position can be lethal. This is why we do not treat the patient standing nor do we rush patients out the door after treatment. Should loss of consciousness occur, monitor the patient's vital signs and follow the American Heart Association's life support guidelines. When the patient regains consciousness, they will be disoriented. In these cases, treatment is postponed to a later date if at all.

Pain

Within approximately 5 minutes of PTC injection, the area injected will become warm, red and painful.



5 minutes after PTC injection

The pain can be intense or dull and can be described as a burning or an ache. Duration of pain can be from 10 minutes to several days. NSAIDs should be avoided as they interfere with normal tissue healing. If analgesia is required post treatment, a mild narcotic opioid such as 5mg hydrocodone every four to six hours should be sufficient.

Swelling

Swelling from PTCtx begins almost immediately after treatment and worsens over several hours. Swelling can be dramatic and approaching grotesque. The majority of the swelling will abate within a week, but some degree of swelling will remain for 4-6 weeks. It is for this reason that treatments are given at six week intervals. Six weeks are needed before swelling subsides and the physiologic reactions to PTCtx are waning and results are seen. Therefore there is no value in treating more frequently. Herbal 'wraps', such as those given in day spas, can greatly speed the decrease in swelling and pain and can be given 48 hours after treatment.



bruising 1 week post PTCtx

The above described pain, swelling, and bruising are not considered possible adverse reactions. They are normal and expected side effects of PTCtx. It is of utmost importance to carefully explain to patients before treatment that they will definitely experience pain, swelling, and bruising. They must plan their treatment around their schedule as they will not want to be treated soon before certain types of events (weddings, marathons, swimsuit modeling photo shoots, long plane flights, etc).

You must keep in mind that patients are often so excited to receive PTCtx that they do not pay attention to your warnings and when the pain and swelling occur- they panic. They think about undergoing an allergic reaction or developing infection. Adequate time spent explaining adverse reaction to your patient will definitely prevent phone calls in the middle of the night or even unnecessary visits to the emergency room.

Cholinergic reaction

Cholinergic reactions can occur in the form of nausea, vomiting or diarrhea and can last from one to 24 hours. Anti-emetic medications are indicated and are generally helpful.

Numbness

The patient may experience cutaneous numbness at the treated area that can last from a few days to a few months. In my experience, this always resolves and can be greatly ameliorated with general mesotherapy: point by point injections of procaine, pentoxifylline and multi-vitamin with a 4mm needle at one week intervals.

Nodules

Some patients may develop small, soft, palpable nodules in the area treated. As your technique improves, these nodules will rarely occur, but beginners whose injections are less consistent and precise will have this happen occasionally. Nodules can also occur from poorly compounded PTC or too strong of a concentration. The nodules usually will dissolve over time and no treatment is needed. In case of persistent nodules using the above described injections (used for the numbness) would generally expedite their disappearance. Nodules should be injected directly which may require a ½ inch needle. Nodules must be also monitored for signs of tissue necrosis.

Summary

Proper understanding and management of adverse side effects and reactions is crucial to patients' safety and satisfaction as the PTCtx is becoming more widely used in the U.S. A.

*** Injectable PTC always contains a detergent called sodium deoxycholate.**

In order to expand this cursory overview, please communicate your experiences and suggestions to mail@doceremedical.com.



6 weeks after PTCtx performed by Dr. Adelson