Photodynamic therapy

What is photodynamic therapy?

Photodynamic therapy is a treatment for various skin conditions. It requires a combination of a medication and the application of energy to create a chemical reaction that targets certain growths or skin conditions. The medication is applied usually in a cream formulation and the energy is obtained from a strong light source.

What is photodynamic therapy used for?

Photodynamic therapy is most commonly used for superficial skin cancers and solar keratoses (sun spots). For skin cancers, a biopsy will usually have confirmed the diagnosis.

What is involved in photodynamic therapy?

A common procedure for treating a superficial skin cancer with photodynamic therapy is outlined below. However, there are many possible alterations to this technique, which can also be effective.
At first the lesion is identified and marked out. The surface is gently scraped to remove any scaliness or crusting. This is sometimes mildly painful and may bleed. A special cream is then applied to the lesion after which it is covered with a dressing. Extra padding may be applied to ensure the dressing is opaque. This is left intact for three hours.
The dressing is then removed and any residual cream cleaned from the lesion. A bright light source is then irradiated onto the lesion, held between 5 to 8 centimetres from the skin for approximately 8 minutes. The light is very bright and protective glasses should be worn. Subsequently the lesion is cleaned and dressed again.
The dressing should be kept intact for at least 24 hours and the area protected from sunlight.
The treatment for skin cancers is usually repeated again in one to three weeks.

When is photodynamic therapy not used?

Photodynamic therapy is suitable for certain skin conditions only. As far as skin cancers are concerned, photodynamic therapy has been shown to provide an acceptable cure rate only in superficial nonmelanoma skin cancers.
People with a strong sensitivity to light or with photosensitive disorders such as lupus, may not be appropriate candidates for this form of treatment. People who suffer from claustrophobia may find the dressings and close application of strong light difficult to bear. Redness, weeping and crusting will develop after treatment and will need simple bathing and dressings.

What problems can occur with photodynamic therapy?

During treatment, discomfort at the treatment site is common. This may include burning, stinging or tenderness. Cool air blowing over the skin can alleviate the discomfort. The treatment can be stopped if necessary to provide pain relief such as a local anaesthetic. The discomfort generally ceases quickly when the light is switched off but occasionally can persist.
Some redness, swelling and crusting is expected after the procedure but generally will

subside after a few days. Occasionally, more severe swelling, blistering, weeping or itching may occur. In some cases the skin may become lighter or darker in colour. Increased skin colour generally fades over months but decreased skin colour can occasionally be permanent.
Rare side effects have been reported including: anxiety, headaches, dizziness, migraines, thinning of the skin, widespread skin rashes, abnormal production of tears, nausea, tiredness, influenza-like symptoms and skin infections.

What follow-up is required?

Follow up should be arranged with your dermatologist. The treated area should be checked within a few weeks to ensure that the area is healing adequately and that there is no residual or recurrent concern in the longer term. Regular check-ups are recommended to ensure that any new skin lesions are detected and treated.