

Poster presentation

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## Ultrasound guided interstitial photodynamic therapy of deep seated lesions

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### Introduction

Photodynamic therapy is a minimally invasive therapy that results from the interaction between a photosensitizer, oxygen and light. The delivery of light can be by either by surface illumination or interstitial application.

We describe the intraoperative application of ultrasound in guiding light delivery in photodynamic therapy.

### Materials and methods

A total of 60 patients with various deep seated pathologies in the head & neck, upper and lower limbs were treated with mTHPC-photodynamic therapy. 2D Ultrasound was used to guide the needle insertion in the diseased area.

### Results

It was possible to clearly identify the needles during insertion in all treatments and it was possible to guide parallel needle insertions using ultrasound. Although the resolution of ultrasound is not as good as other imaging modalities (i.e. CT, MRI) it was satisfactory in identifying the centre and the peripheries of the pathological lesions.

Ultrasound is very easy to perform, non-invasive, relatively inexpensive, quick and convenient, suited to imaging soft tissues and does not cause any discomfort.

### Conclusion

Ultrasound can be used to guide 'real-time' photodynamic therapy of deep seated tumours and other malformations and can augment the information from other imaging modalities without affecting the patient's treatment outcome.