Alternatives to the Sentinel Lymph Node Biopsy (SNLB)

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Abstract

Introduction

This review paper highlights the key alternatives to the blue dye/radioisotope method of SLNB, and analyses the research available on these alternative methods and their outcomes when compared to the traditional techniques.

Methods

This review focused on 13 articles, of which; 4 used indocyanine green as a tracer, 3 used magnetic tracers, 1 used one-step nucleic acid amplification and Metasin (quantitative reverse transcriptase-polymerase chain reaction), 1 used photosensitizer talaporfin sodium, 1 used Sulfur hexafluoride gas microbubbles, and 3 focused on general SLNB technique reviews.

Results

Of the 13 papers analysed,Sentinel node detection rate ranged from 69-100% for indocyanine green, from 91.67-100% for magnetic tracers, 81% for talaporfin sodium, 9.3-55.2% for sulfur hexafluoride gas microbubbles and 82.7-100% for one step nucleic acid amplification.

Conclusion

This review paper compares the current alternative techniques being developed for axillary management in breast cancer. Further work is needed on investigating the use of these techniques in conjunction with each other, and their cost efficacy.