## **BREAST LUMPECTOMY MARGINS**

There has been considerable literature on breast conservation therapy over the past few years, with an emphasis on cosmesis and less emphasis on the possible disadvantages of excision with inadequate margins at initial surgery.

Recent literature<sup>1</sup> suggests that 1 in 4 women who have had breast conservation therapy require a second operation to remove residual tumours, an improvement over the last few years, but still substantial. Recent literature<sup>1,2</sup> suggests that inadequate margins at initial surgery are disadvantageous for patients from a psychological and economic standpoint. There does not appear to be emphasis that having a positive margin at initial surgery negatively influences the likelihood of remaining disease free, although studies3,4 have demonstrated that local recurrence after breast conservation surgery increases systemic disease, which can lead to increased mortality. It has been stated5 that cancer cells have growth factor receptors that are compatible with growth factors in the wound environment and that cancer cells that shed intraoperatively can contribute to both local recurrence and dis-

It is suggested that the cosmetic advantages of removing a specimen 1–2 cm smaller does not warrant the disadvantage of removing a specimen with inadequate margins, particularly since a second procedure negates the cosmetic advantage of removing a smaller specimen. Silverstein and colleagues<sup>6</sup> in discussing ductal carcinoma in situ made a comment that should also apply to lumpectomy for neoplasm: "the first excision is the best opportunity to achieve both goals, complete excision and good cosmetic result."

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## JOSEPH LISTER: FATHER OF MODERN SURGERY

On the centenary of Joseph Lister's death, it is appropriate to remember and honour his remarkable accomplishments that earned him the title "father of modern surgery."

Conferences to commemorate "the greatest surgical benefactor to mankind" were held this year at King's College in London, England, and at the Royal College of Surgeons of Edinburgh, where speakers covered a wide range of relevant topics, including history, current research in surgical infection and health policy in Great Britain. Many of the presentations included quotes by or about Lister from his era, and those quotes remain relevant to modern surgery.

It was Lister's genius to take the work of Pasteur on the etiology of fermentation and envision this process as the same that was causing infection and gangrene. In the face of movements to abolish all surgery in hospitals because of the prohibitive death rate from infection,<sup>2</sup> Lister changed the treatment of compound fractures from amputation to limb preservation and opened the way for abdominal and other intracavity surgery.

Born in Essex, England, to a Quaker family, his father was elected a Fellow of the Royal Society for his construction of the first achromatic lens and coauthored a paper with Thomas Hodgkin about red blood cells. Paternal guidance was a major influence throughout Lister's career.<sup>3</sup>

Lister was an excellent student at the University College of University of London and became house surgeon at University College Hospital where he attained Fellowship in the Royal College of Surgeons. On the advice of Professor Sharpely of physiology, he went to study under the renowned surgeon James Syme in Edinburgh. Lister prospered in Edinburg and married Syme's eldest daughter, Agnes.

His main research interest was inflammation, a process then considered a specific disease and not a response by healthy tissues to infection. Lister did come to understand that inflammation caused loss of vitality, which rendered tissues helpless as if they were dead,<sup>4</sup> helpless against organisms he would eventually attribute as the cause of the devastating and feared surgical site infections. He published 15 papers about the action of muscles in the skin and the eye, the coagulation of blood and blood vessel changes with infection.

At 33 years of age, he was appointed Regius Professor of Surgery at the University of Glasgow, but it took him another year to get privileges at the Glasgow Royal Infirmary. His initial application was rejected by the Chair of the Royal Infirmary Board, David Smith, with the comment "But our institution is a curative one. It is not an educational one." Glasgow had twice the population of Edinburgh and was renowned for its "warm-hearted, voluble and uncritically friendly inhabitants," an ideal environment for a