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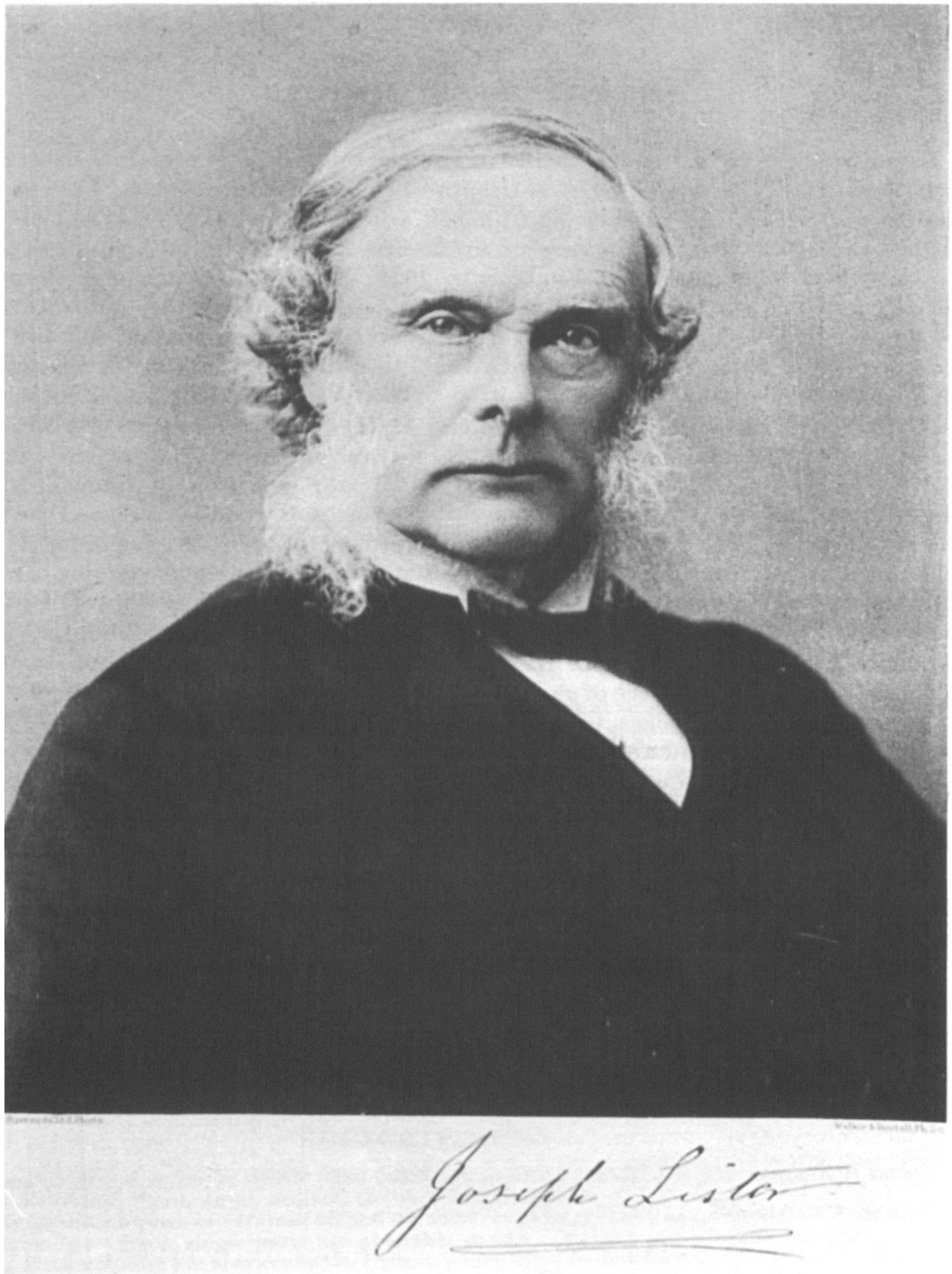
JOSEPH LISTER, 1827–1912

Lister has been hailed as the Father of Modern Surgery, and certainly deserves to be revered as the instigator of antiseptic surgery. William Watson Cheyne, a student and colleague of Lister, and himself a noted surgeon, drew attention to Lister's skill as an orthopaedic surgeon in the first Lister Memorial Lecture at the Royal College of Surgeons of England in 1925. Lister's methods of antisepsis initially involved the liberal use of carbolic acid, and he is frequently remembered for his use of antiseptic spray to reduce contamination from the air. His use of sprays resulted from a discussion with the Professor of Chemistry in Glasgow, Thomas Anderson, who drew his attention to the recent work of Pasteur showing that liquids sterilized by boiling remained sterile, though open to the air, if airborne microorganisms were excluded. By saturating the air, the patient's skin and the surgeon's hands with carbolic acid Lister was able to prevent the suppuration then considered almost inevitable in surgical wounds. Watson Cheyne records the scene when visitors came to see the results: 'The dressing of the patient followed a regular routine: the dresser on duty got on his knees at the side of the bed, and as soon as the bandages had been cut he started his hand spray. Lister then lifted off the outer dressing which was solemnly handed round to each distinguished foreigner to smell. Having satisfied themselves that there was no putrefaction, the deeper piece of gauze ... was passed round to show that there was no pus.' Yet in later years Lister abandoned the spray and concentrated on antisepsis of skin, wound and hands with equally good results. Airborne infection had apparently become unimportant.

With a perspective of 75 years since the death of Lister, the following invited review by Owen M. Lidwell, formerly of the MRC's Air Hygiene Unit and the PHLS Cross Infection Reference Laboratory re-examines the role of the air in infection of surgical wounds.



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