Immune and anaesthesia

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The essay claims that the relationship between anaesthesia andimmune response must be taken into consideration. As aknowledge of immunology is now essential for all anaesthetistsand of particular importance in intensive care; hence, the essayaims at studying:I. Basic immunology, 2. Hypersensitivity, and 3.Transplantations,4. Autommune diseases, 5. the effect of anaesthesia and surgeryon Immune response.Chapter one, entitled ” basic immunology ”, handles1. immunology as a broad field encompassing basic research andclinical application, and 2. cytokines as a heterogeneous group ofproteins, variously termed lymphokines, monokines,interleukines and interferons, which act on cell surfacereceptors to regulate and modify cell growth, maturation andrepair.Chapter two, entitled (Hypersensitivity), denotes ofexaggeration in an immune response, hypersensitivity reactionsare divided into four types depending on the mechanism ofimmune recognition and on the inflammatory mediator system.Chapter three, entitled (Transplantation) deals with thereplacement of diseased organs (kidney, liver, bone marrow) byhealthy one from another individual. Also, it handles rejection ofthe transplanted organ and immunosuppressant drugs.Chapter four, entitled (Autoimmune disease) discussesautoimmune diseases (Hashimoto thyroiditis, Myasthenia Gravisand Insulin dependent diabetes mellitus) and immunodefeciencydiseases.Chapter five, entitled (The effect of anaesthesia and surgery onimmune response), studies the alterations that have been found inevery component of immune response during anaesthesia andsurgery. It also studies the effect of blood transfusion, pain,parenteral intravenous fluid, malnutrition and immunomodulationof cytokines during anaesthesia and surgery.The rnanagenement of anaesthesia is more important thanselection of some special anaesthetic agent or method. Goodmanagement means good anaesthetic care and maintenance ofhaemostasis. The body is able to correct even severe alterations inthe immune response if the vital function is maintained and theunderlying disease can be treated.A knowledge of immunology IS now essential for allanaesthetists and aparticular importance in intensive care. Theimmunology consequcnces of present practices ncedre-examination and both scientific and clinical studies should beunder taken with the introduction of any new drugs andtechniques to determine the consequences of their application 011the immune system.