RECENSIONI DI LIBRI

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Prontuario di terapia medica 2001
Ed. Minerva Medica - Torino 2001
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Scopo del presente prontuario è quello di fornire le informazioni scientifiche e le normative fondamentali di ogni farmaco prescrivibile con ricetta, e cioè le indicazioni terapeutiche, le controindicazioni al loro impiego, le confezioni in commercio con il relativo prezzo aggiornato al mese di luglio 2001, le più recenti normative che regolano la prescrivibilità "soggetta a norma" con note aggiornate al 2001, gli eventuali effetti collaterali e l'elenco delle molecole attualmente disponibili con l'indicazione dei relativi nomi commerciali.
La caratteristica principale che contraddistingue il presente volume è la presenza, nelle pagine iniziali, di utili percorsi terapeutici che suggeriscono le strategie indicate in corso di patologie o condizioni cliniche di più frequente riscontro.
Le indicazioni sono tratte dalle più recenti linee guida di Istituzioni Internazionali (OMS/WHO) o di Associazioni altamente specialistiche (European Helico-bacter Pylori Study Group, Ameriean College Cardiology etc.) e si riferiscono a ciò che può essere effettuato dal punto di vista terapeutico a livello non specialistico. Nel caso che l'opzione indicata non sortisca l'effetto voluto è preferibile consigliare la persona malata di rivolgersi allo specialista.
In un epoca in cui l'informazione scientifica è soggetta ad una rapida e continua evoluzione, diventa importante per il medico, nell'ambito della quotidiana attività clinica, disporre di uno "strumento di lavoro" agile, completo, aggiornato e di facile consultazione come il presente "Prontuario di terapia", che trova posto facilmente sia nella borsa che nella tasca del camice.

Editoriale

R. Horch, A.M. Munster, Bruce M. Achauer
Cultured human keratinocytes and tissue engineered skin substitutes
Thieme, New York, 2001
300 pp., € 99
ISBN 3-13-130161-9

Future trends in tissue-engineered skin substitute developments: in vitro or in vivo?
The skin is a versatile organ functioning at the interface between man and the environment.
This organ can be repaired naturally when damaged (say, by fire) as long as roughly 40% of it continues to function; otherwise, death often ensues.
Efforts to replace nonfunctional organs have been relying on formation of the desired tissues and organs either in vitro or in vivo. In vitro processes rely extensively on formation of the desired; organ in the laboratory, based on a series of culture steps, followed by implantation in the host. In vivo methods make minimal use of cell culture; they rely instead on identification of the appropriate nondiffusible regulator.
It is possible to simplify the presentation of the complex protocols used by different investigators for formation of organs by using the systematics of synthetic chemistry (Yannas, 2000a). Presented in this simple code, the data from a large number of independent investigators can be analyzed simply and directly. In the area of synthesis of skin, for example, the analysis leads to a few conclusions:
1. The epidermis and the basement membrane can both be synthetized in vitro. The synthesis requires simply keratinocyte culture; no serum or dermal elements are required.
2. A physiological dermis (lacking appendages) has not been synthetized in vitro. Its synthesis in vivo requires the presence of a nondiffusible regulator; exogenous keratinocytes are-not required in the dermis-free defect.
3. Synthesis of a physiological skin, complete with an epidermis, basement membrane and a neodermis (no appendages), requires that the, keratinocyte-seeded nondiffusible regulator be implanted. Exogenous fibroblasts are not required.
These findings agree with independent data on the conditions required for synthesis of peripheral nerves and

their tissue components. The data support the overall conclusion that extension of the synthetic process for skin from the epithelia (epidermis) to the basement membrane and, finally, to the stroma (dermis) requires a gradual transition from in vitro to in vivo protocols (Yannas, 2000b). It is suggested that this transition is necessary in order to accommodate the requirements for stroma synthesis: not only endogenous fibroblasts but also the appropriate concentration of soluble regulators (cytokines and growth factors), supplied by the exudate inside the dermis-free wound, are required. Modern efforts to generate new tissue and restore lost function have been dependent on advances in associated fields of cell biology, and material sciences. It has now seems clear that the use of living cells will result in a higher degree of tissue function than the use of endogenous, or exogenous chemicals to stimulate development.Early approaches to reintròduce cells into a host were quite simplistic and usually unsuccessful. Cells were injected as free suspensions in hope that they wonld randomly engraft. During the last two decades, synthetic and naturally occurring polymer scaffolds have been used to provide cell anchorage sites and intrinsic structure when implanting cells. The use of a template enables precise engineering of a multitude of characteristics, such as surface area and exposure of the attached cells to nutrients. The porosity of synthetic scaffolds can be varied to alter the intrinsic strength and elasticity of the matrix, as well as other characteristics, such as the degradation rate and the environment into which the cells are implanted. It is conceivable to correct a variety of hormonal and enzymatic deficiencies using this approach in combination with gene therapy. Successful application of this technology requires the identification of key features of scaffoldings that are important for maintaining cell function. Another critical factor, which is only now being fully explored, is the source of the cells to be utilized. Several studies have suggested that immature cells, as compared to the fully differentiated cells of specialized tissues, are better able to multiply. The parallel to nature is extremely important, as many efforts have reported the highest degree of success when mimicking nature. What is known scientifically represents only a miniscule degree of the organization and function of living systems. Although numerous theories have been proposed and then replaced by more "modern hypotheses", most of the biologic processes remain "a black box". The basic premise in health care is to enable the body to heal itself. Physicians do nothing more than optimize an environment most conducive to healing.

In Tissue Engineering, we strive to accomplish the same goals. Dead tissue and scar is excised. Rather than approximating the remaining tissue to eliminate the dead space; living cells that belong in the damaged area, are implanted in a configuration that will prevent them from dissociating.

Application of these principles has enabled scientists to successfully generate several new function tissue equivalents.

From the foreward

Kim J. Burchiel
Surgical management of pain
Thieme New York 2002,
399 pp., € 279
ISBN 3-13-313-125981-7

Is there a definable specialty of neurosurgery devoted to the treatment of pain? The answer is unequivocally, yes. It is part of the larger discipline of pain medicine that took root and flourished during the past four decades since its development at the University of Washington in the 1960's. The pantheon of pain research and treatment, is, in fact, teeming with neurosurgical heroes who helped to define a field that continues to grow and evolve, as does any healthy discipline of medicine. This text is a testament to the status of surgical pain management at the beginning of the twenty-first century. There is no doubt that a great need exists for an updated text on pain surgery, one that covers the field and could serve as a source of knowledge and inspiration for both clinicians and basic scientists. A special merit of the present volume is that it includes a section on the medical aspects of pain, with guidelines for analysis, assessment, non-surgical treatments, pain clinic organization and so forth, solid knowledge of which is mandatory for a neurosurgeon who must function in a multidisciplinary context. Some topics in this book might seem somewhat ancillary to the knowledge base of the clinician interested in surgical pain treatment. Beyond the obligatory reviews of the anatomy, physiology, and pharmacology of pain and nociception, and a recitation of specific pain diagnosis, some topics may appear to be off the mark of what might be expected to be, for the most part, a procedural text. But, in fact, discussions on the assessment of pain patients, the rehabilitative treatment of patients with chronic pain, management of opiates and other analgesics, myofacial treatments, and the ethics of pain control in the dying patient, are as central to the practice of surgical pain management as knowing how to place a spinal cord stimulator or perforrn a DREZ operation.

There are numerous excellent textbooks devoted to the problem of pain diagnosis and treatment that should be part of the library of any serious student of the surgical

treatment of pain. The list of contributors is truly international and virtually represents a "who's who" in pain medicine, management, and surgery. A characteristic feature is that each chapter, written by a recognized and experienced specialist, is followed by a commentary by someone representing different perspectives and opinions. This text will be most useful for everyone interested in advanced and interventional pain therapy, and it will serve as a source of inspiration for young neurosurgeons to embark on the fascinating field of pain surgery. These books are the standard against which future textbooks on pain surgery will likely be compared.

From the preface