ELSEVIER

International Journal of Pharmaceutics 119 (1995) 121

international journal of pharmaceutics

Book Review

Glycopeptide Antibiotics 1994
Ramakrishnan Nagarajan (Ed.)
Drugs in the Pharmaceutical Sciences Volume 63
Marcel Dekker Inc., New York, 1994.
ISBN: 0-8247-9193-2.
Price $165; 432 pages.

A first glance at this text of 432 pages devoted to, in essence, two antibiotics vancomycin and teicoplanin, might leave one thinking that the editor has been overly generous to his contributors. Such thoughts are, however, quickly dispelled as the various chapters unravel in a logical sequence describing the renewed clinical and scientific interest in these compounds.

Chapter 1 sets the scene on the discovery, classification and occurrence of the glycopeptide antibiotics. Detailed descriptions are given of the screening assays used to discover the compounds. Chapter 2 follows with discussion of purification and separation techniques ranging from classical ion-exchange to affinity and HPLC methods. Detailed descriptions are given for vancomycin and teicoplanin, and also for avoparcin which is used commercially as a feed additive for growth promotion in domestic animals. Chemical aspects of the compounds are dealt with in detail in Chapters 3, 4 and 5. These describe firstly, the advances made towards total synthesis of vancomycin and similar chemical structures leading on to chemical considerations of the carbohydrate components of glycopeptide antibiotics and finally dealing with structure-activity relationships of vancomycin antibiotics.

Later chapters are concerned with the activity of the compounds. A useful description of the mechanism of action of the compounds is given in Chapter 6 together with a consideration of the impact of the development of resistance on use. This aspect is discussed well in relation to the continuing need to find new antibiotics active against resistant strains. Vancomycin and teicoplanin are then considered separately and in depth in relation to their analytical quantification, antimicrobial activity, pharmacokinetics and toxicology. Although this book applauds the value of vancomycin and teicoplanin, in particular, the final clinical overview is not afraid to suggest that new agents are required with an improved safety profile and more potent – especially against resistant enterococci and staphylococci.

Overall, this is a book providing useful and comprehensive information on a small group of antibiotics having a large role to play in the fight against infection. Academics working in the area, certainly, and clinicians will find the book a useful addition to their library.

S.P. Gorman
The School of Pharmacy
The Queen's University of Belfast
UK

SSDI 0378-5173(95)00016-X