# Synthetic and Biological Cardiac Prostheses

Long-Term Prognosis Following Valve Replacement. Advances in Cardiology, Vol. 7. Ed. J. H. K. Vogel. (pp. 281; £8.25.) Karger. 1972.

This 280-page book contains the collected papers and discussions from a conference held at Aspen, Colorado. The papers are assembled in four groups. The first section is devoted to the consideration of synthetic and biological materials for valve construction. Operative and late mortality, functional results and complications following valve replacement with various types of prosthetic and tissue valves are dealt with in the second and third parts. The final section is devoted to the assessment of prosthetic valve function, the detection of mechanical malfunction, haemolysis, platelet function and thromboembolism, infection, and the causes of late death.

The results from six surgical centres in the United States were combined to give the late results of single valve replacement in 608 patients. Late mortality was lowest  $(7\cdot1\%)$  in patients with mitral stenosis and highest  $(21\cdot5\%)$  in patients whose valve replacement was undertaken for aortic regurgitation. No correlation could be found between mortality, functional result, and the type of prosthesis or graft used.

Mitral valve replacement with the Wada-Cutter pivoting disc valve was reported from Houston in a series of 235 patients of whom 203 survived. The operative mortality was lowest, 7%, when the mitral valve was replaced for stenosis, compared with 29% when replacement was done for mitral regurgitation. One hundred and twenty-three of

the 203 survivors were followed up and of these 105 patients remained well but there were 29 late deaths and 35 late complications. Four patients developed thrombosis of the prosthesis requiring re-replacement and in seven the prosthesis became partially detached. Approximately half the patients received long-term anticoagulents and half did not. Although the early incidence of thromboembolism was no different between the two groups the late incidence was much higher, 25%, in those who received no anticoagulants than in those who received anticoagulants (15%). Cooley's group did not recommend the Wada prosthesis for aortic valve replacement since calcium projecting from the annulus could interfere with the downward movement of the disc.

The Mayo Clinic reported aortic valve replacement using a free cadaver homograft in 189 patients followed for up to  $5\frac{1}{2}$  years. The operative mortality was 6%. Thirty-three of the 178 survivors had an aortic diastolic murmur at the time of hospital dismissal and there were 14 late deaths due to myocardial infarction in five of the eight patients who were submitted to necropsy. Six of the 14 patients who died had been known to have an incompetent homograft. No patients were placed on long-term anticoagulants and embolic complications occurred in only four. No difference was noted in the early or late results between those patients in whom a betapropiolactone prepared valve was used and those patients in whom the homograft had been sterilized by irradiation and preserved by freezing. This group regarded a free aortic homograft as the preferred repalcement for the aortic valve.

The use of a fresh inverted stented aortic

homograft for mitral valve replacement was reported from Stanford. These valves had been used in 350 patients and continued to be used as the mitral valve replacement of choice. Continued good valve function was regarded as dependent on donor cell viability in the prosthesis. The development of mitral insufficiency was slow and non-lethal when it occurred. Thromboembolism occurred in only four patients, and was thought to have originated from the left atrium rather than from the valve.

The use of pig and calf heterografts was reported from Binet's group in Paris. The results were best in the last group of 30 patients in whom the valves were mounted on a stent and in these the hospital mortality was only 4% and 70% of the valves were still functioning well without a diastolic murmur after two years. Mounted inverted porcine heterografts were used for mitral valve replacement at the Mount Sinai Hospital in New York, but as in Paris there was a high incidence of valve failure. Coinciding with the Paris experience there was a high failure rate when the valves were prepared with formalin but a lower incidence when gluteraldehyde was used.

This book presents a useful synthesis of the experience of a number of leading cardiac units with the use of most of the currently available artificial and tissue valves. The parts on the detection of valve malfunction are perhaps particularly useful. It should prove of interest to all those who have to deal with the selection of patients for valve replacement and their management afterwards.

CELIA M. OAKLEY

## The Reluctant Bowel

Management of Constipation. Ed. Sir Francis Avery Jones, F.R.C.P. and Edmund W. Godding, F.P.S. (Pp. 197; £2.) Blackwell. 1972.

The management of constipation can scarcely be described as a glamorous subject, but it is undoubtedly of great practical importance and is often poorly understood. It is therefore beneficial to have this short monograph which has been jointly edited by a gastroenterologist and a pharmacist, both of whom

Management of Constipation. Ed. Sir have exceptional knowledge of the subject.

The book begins with an excellent chapter on the physiology of the colon by Alastair Connell, who has himself contributed much to our understanding. This is followed by two chapters by Edmund Golding, the first on some aspects of gut physiology and the second on therapeutic agents. Michael Hinton follows with a chapter on diagnosis, and this is succeeded by one on the management of constipation in adults by Avery Jones. The final chapters deal with the problem as met with in children, in old age, and

in pregnancy and are written by appropriate specialists.

There can hardly be a practitioner in any branch of clinical medicine who does not have patients who remind him of William Blake's character: "Long John Brown had the Devil in his gut." This short book is packed with practical advice on how to cast out the Devil in question and it can be heartily recommended.

S. C. TRUELOVE

## **SELECTED NEW TITLES**

Gre wing Up Adopted. A Long-term National Study of Adopted Children and their Families. Jean Seglow, Mia Kellmer Pringle, and Peter Wedge. (Pp. 200; £2·20.) National Children's Bureau. 1972.

Questionnaire. A Technique for the Identification and Assessment of Non-psychotic Psychiatric Illness. Maudsley Monographs No. 21. David P. Goldberg, D.P.M. (Pp. 156; £3·50.) Oxford University Press. 1972. The Upper Cervical Spine. Regional Anatomy, Pathology and Traumatology. A Systematic Radiological Atlas and Textbook. Detlef von Torklus, and Walter Gehle. (Pp. 101; £7.) Butterworths. 1972.

Leukaemia," by Dr. D. Pinkel (Memphis, U.S.A.), 11 October, 5.30 p.m., Institute of Child Health, London W.C.1. Admission is by ticket only and application must be made to the secretary, L.R.F., 6 London WC1N 3JJ. 61 Great Ormond Street,

Nuffield Department of Orthopaedic Surgery, Oxford University.—Series of lectures, the first half of a postgraduate course, "Basic Sciences of the Musculoskeletal System," Fridays, 6.30 p.m., and Saturdays, 8.30 a.m. 13 October-16 December inclusive, Nuffield Orthopaedic Centre, Oxford. Members of the medical and allied professions are invited. Details from the centre. (Tel. Oxford 64811.)

"2nd Theoretical and Practical Seminar on Typing of Human Hyperlipoproteinaemias." 14-15 October, Rome. Details from Fondazione Giovanni Lorenzini, Via Giovanni Lorenzini, 2 (ex Via Brembo, 65), 20139 Milano, Italy.

European Symposium on the Function of the Oesophagus.—16-18 October, University Hospital, Odense. Details from the Secretary of the Symposium, Department of Thoracic Surgery, DK-5000 Odense, Denmark.

"Diseases associated with Refined Carbohydrates."—Symposium, 20 October, Royal Society of Medicine, London W.1, organized by the McCarrison Society. Details and application forms are obtainable from the honorary secretary, Dr. Barbara Latto, 5 Derby Road, Caversham, Reading, Berks. (Tel. Reading 473165.)

"Thoracic Medicine and its Basic Scientific Aspects."—Day-release course, on five consecutive Fridays, 3, 10, 17, 24 November and 1 December, at Cardiothoracic Institute (Brompton Hospital), intended for registrars in general medicine and suitable for M.R.C.P. candidates. Fee £15. Applications, by 16 October, to the secretary, Institute of Diseases of the Chest, Brompton, London S.W.3. (Tel. 01-352 8144.)

## SOCIETIES AND LECTURES

For attending lectures marked \* a fee is charged or a ticket is required. Applications should be made first to the institution concerned.

## Monday, 25 September

LONDON UNIVERSITY.—At St. Bartholomew's Hospital Medical College, 5 p.m., Professor D. A. Davey (Cape Town): Obstetric Assessment of Fetal Age, Size, and Maturity.

#### Wednesday, 27 September

ROYAL FREE HOSPITAL.—5.15 p.m., Professor A. Torsoli (Rome): Gastrointestinal Motility Studies in Man.

## Friday, 29 September

CHARLES BURNS CLINIC, BIRMINGHAM.—At Queens-bridge Road, Moseley, 4 p.m., Mr. D. Carr: Work in a Day School for Maladjusted Children.

#### UNIVERSITIES AND COLLEGES

#### LONDON

M.D.—Dulcie V. Coleman, D. A. Robinson, S. N. Wolkind.
M.S.—F. A. W. Schweitzer.
Ph.D.—In the Faculty of Medicine: T. W.

Wolkind.

M.S.—F. A. W. Schweitzer.

Ph.D.—In the Faculty of Medicine: T. W.
Barrowcliffe, A. Garner, J. D. Harrison, Hla-Khine,
J. S. Owen, A. H. S. Rahi, M. Tirgari.

M.Sc.—In the Faculty of Medicine: A. R. O.
Abdel Rahman, R. J. Atkins, Abd-El H. S. El-Din
Bolbol, J. Burgess, Maria C. W. De Colli, A.B.C.
Dallas, Lesley S. P. Griffin, J. P. Heath, M. O. B.
Iswala, A. O. Lambo, A. A. Mahmoud, R, Mosbel,
S. P. Morzaria, V. L. Ongom, P. Scheiber, Jill K.
Bruford, S. K. Fisher, A. J. Kennedy, Nigarali P.
Murani, D. M. Tricklebank, \*Susan J. Wonnacott.

M.PHIL.—In the Faculty of Medicine: J. M. B.
Versey.

\* Awarded a mark of distinction.

### H.M. FORCES

Lieutenant-Colonel R. Gathercole, from R.A.M.C.,

#### **B.M.A.: ASSOCIATION NOTICES**

#### Diary of Central Meetings

SEPTEMBER

25 Mon. Public Health Committee. (Scot-Health Committee, (Scotland) (at 7 Drumsheugh Gardens, Edinburgh), 10.45 a.m.
Working Party on Services for the Elderly (Board of Science and Education), 11.30 a.m.
Board of Science and Education, 10.30 a.m. 25 Mon. 26 Tues. 10.30 a.m. 27 Wed. 27 Wed. Finance Committee, 2 p.m.
Liaison Committee between
G.M.S. Committee and C.C.H.M.S., p.m. 27 Wed.

2 p.m.
Senior Hospital Medical Officers
Group Committee, 2 p.m.
Central Committee for Hospital
Medical Services, 10 a.m.
Family Planning Working Party
(G.M.S.), 10.30 a.m.
Full-time Medical Teachers and
Research Workers Committee,
11 a.m. 28 Thurs. 28 Thurs.

28 Thurs. 11 a.m. 29 Fri. ublic Health Committee.

29-30 Annual Postgraduate Meeting (at Inverness) (Programme appeared in the Supplement, 19 August).

OCTOBER

Council, 10 a.m.
Programmes 4 Wed. 10 Tues. Scientific Programmes Panel (Board of Science and Education), 10.30 a.m.

11 Wed. Journal Committee, 2 p.m.
Panel on Artificial Insemination
(Board of Science and Education), 13 Fri. 12 noon.

18 Wed. Committee on Overseas Affairs, 10 a.m. Hospital 19 Thurs. Hospital Junior Council, 10 a.m. Staff Group

## Branch and Division Meetings to be Held

Members proposing to attend meetings marked are asked to notify in advance the honorary secretary concerned.

Postgraduate Bournemouth Division.-Medical Centre, Friday, 29 September, 8 for

Also p.m., meeting to discuss Chambers Report and to receive motions to S.R.M.

Dunbartonshire Division.—At Black Bull Hotel, Milngavie, Tuesday, 26 September, 7.30 for 8 p.m., film; 8.30 p.m., buffet supper followed by correct motions and discussions. lowed by general meeting and discussion of Chambers Report.

Chambers Report.

East Herts Division.—At Hitchin Hospital
Oughtonhead (the old Lister), Thursday, 28
September, 8.15 p.m., special meeting to consider motions to S.R.M.

East Norfolk and Norwich Division.—At
Norfolk and Norwich Hospital, nurses' lecture
hall, Wednesday, 27 September, 8.15 p.m.,
a.g.m. and discussion of Chambers Report.

Essex Branch.—At Chelmsford and Essex
Hospital academic centre, Wednesday, 27 September, 8.30 p.m., meeting to discuss comments

tember, 8.30 p.m., meeting to discuss comments

of Council on Chambers Report.

Furness Division.—At Michaelson House
Hotel, Barrow-in-Furness, Thursday, 28 Sep-House tember, 7.30 for 8 p.m., wine tasting and buffet.\*

Gloucestershire Branch.—At Cheltenham Postgraduate Medical Centre, Thursday, 28 September, 8 p.m., special general meeting to discuss Chambers Report.

Hartlepool Division.—At Postgraduate Centre, General Hospital, Hartlepool, Tuesday, 26 September \$2.00 am, B.M.A. lacture by Dr. W.G.

tember, 8.30 p.m., B.M.A. lecture by Dr. W. G. Scott-Harden: "Modern Radiology of the Scott-Harden: "Mode Gastrointestinal Tract."

Gastrointestinal Tract."

Havering Division.—At Oldchurch Hospital medical centre, Tuesday, 26 September, 8 for 8.15 p.m., meeting to discuss Chambers Report.

Holland Division.—At Westland Hall, Boston General Hospital, Saturday, 30 September, 7.30 p.m., Dr. I. T. Field (Assistant Secretary, B.M.A.): "The Chambers Report and South Viscolarities". Enlayand by huffer support.

Lincolnshire." Followed by buffet supper.\*

Huntingdon and Peterborough Division.—At nurses' home, Peterborough District Hospital, Tuesday, 26 September, 8 p.m., meeting to discuss proposed constitutional reform of discuss B.M.A.

Lewisham Division.—At Lewisham Hospital medical centre, Friday, 29 September, 8 p.m., chairman's reception and wine tasting, "Wine of the Rhine." Guests are invited.\*

Lincoln Division.—At County Hospital board room, Thursday, 28 September, 8 p.m., meeting to discuss Chambers Report.

Londonderry Division.—At Altnagelvin Hospital postgraduate centre, Wednesday, 27 September, 8 p.m., a.g.m.

Medway and Gravesend Division. Bartholomew's Hospital, Rochester, Monday, 25 September, 8.30 p.m., general meeting. North-east Ulster Division.—At Beach Hotel,

Portballintrae, Sunday, 24 September, 3 p.m., a.g.m., and chairman's address by Dr. D. J. Crawford: "30 Years."

Portsmouth Division.—At Medical Centre, Monday, 25 September, 8 for 8.15 p.m., general meeting to discuss report by Sir Paul Chambers. Dr. I. T. Field (Assistant Secretary, B.M.A) will be present.

Reading Division.—At Royal Berkshire Hospital Library Wednesday 27 September 9.20

pital library, Wednesday, 27 September, 8.30 p.m., meeting to discuss Chambers Report.

Shropshire and herewsbury Medical Mid-Wales Branch.—At Shrewsbury Medical Institute, Copthorne, Hospital, Thursday, 28 September, 8.15 p.m., Colonel G. Taylor: "Badly balanced Diets and Malnutrition in Britain Today." (Buffet pro-

South Bedfordshire Division.—At Luton and Dunstable Hospital medical centre, Thursday, 28 September, 8.30 p.m., meeting to discuss Chambers Report.

Chambers Report.

South-east Essex Division.—At Southend General Hospital, Saturday, 30 September, 6 p.m., wine tasting and chairman's reception.\*

South Middlesex Division.—At Red Lion Hotel, Hounslow, Wednesday, 27 September, 8.30 p.m., Dr. E. B. Raftery: "Relief Services in General Practice." Guests are invited. (Preceded by informal dinner, 7 pm. 7.

Tower Hamlets Division.—At St. Andrew's Hospital, Thursday, 28 September, 8 p.m.,

a.g.m. Wandsworth Division.—At St. James's Hospital medical centre, Balham, Tuesday, 26 September, 8.30 p.m., a.g.m. and discussion of

Chambers Report.

Waltham Forest Division.—At Whipps Cross Medical Education Centre, Wednesday, 27 September, 8.30 p.m., Dr. D. Adler will lecture on "China Today" and show film on "Acupuncture and its Applications." Preceded by buffet supper. Guests are invited.\*

West Essex Division.—At Princess Alexandra Hospital, Tuesday, 26 September, 8.30 p.m., special meeting to discuss Chambers Report. Dr. D. L. Gullick (Under Secretary, B.M.A.) will speak.

West Sussex Division.—At St. Chambers Report.

will speak.

West Sussex Division.—At Shoreham Health Centre, Wednesday, 27 September, 7.30 p.m., a.g.m. and discussion of Chambers Report.

Winchester Division.—At Royal Hampshire County Hospital postgraduate centre, Wednesday, 27 September, 8.15 p.m., extraordinary general meeting to consider Chambers Report and to instruct representatives for S.R.M.

#### Notice to Authors

When original articles and letters for publication are not submitted exclusively to the British Medical Journal this must be stated.

Correspondence on editorial business should be addressed to the Editor. British Medical Journal, B.M.A. House, Tavistock Square, London WC1H 9JR. Telephone: 01-387 4499. Telegrams: Aitiology, London, W.C.1.

Authors wanting reprints of their articles should notify the Publishing Manager, B.M.A. House, Tavistock Square, WC1H 9JR, on receipt of proofs.

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