CONTENTS

VOL. 42, No. 1 JANUARY 1972

The oxygen-transporting system in relation to age. C. T. M. DAVIES

The effects of sodium loading and deprivation on plasma renin and plasma and urinary aldosterone in hypertension. J. P. COGHLAN, A. E. DOYLE, G. JERUMS and B. A. SCOGGINS

Ragweed pollen: morphological changes on incubation with saliva from ragweed-allergic and non-allergic humans. L. W. MAYRON and R. J. LOISELLE


Role of the kidney in 'salt and water dependent hypertension' of end-stage renal disease. G. BIANCHI, C. PONTICELLI, U. BARDI, B. REDAELLI, L. CAMPOLO, C. DE PONTI and G. GRAZIANI

Effect of ouabain on insulin secretion in man. C. SAXTON, P. A. MAJID, G. CLOUGH and S. H. TAYLOR

Effect of arterial CO2 pressure on the response of cerebral and hind-limb blood flow and metabolism to isoprenaline infusion in the dog. C. XANALATOS and I. M. JAMES

The association of a humoral sodium transport inhibitory activity with renal escape from chronic mineralocorticoid administration in the dog. V. M. BUCKALEW, JR and C. D. LANCASTER, JR

The proteinases of human gastric adenocarcinomata: their identification, separation and sites of action on the B-chain of oxidized insulin. D. J. ETHERINGTON and W. H. TAYLOR

The role of angiotensin II in the control of aldosterone in man. G. W. BOYD, A. R. ADAMSON, MARION ARNOLD, V. H. T. JAMES and W. S. PEART

Intestinal ammonia in uraemia: the effect of a urease inhibitor, acetohydroxamic acid. J. D. SWALES, J. D. TANGE and D. J. EVANS

SHORT COMMUNICATION


MEDICAL RESEARCH SOCIETY (Meeting held on 22 October 1971)

Demonstrations
Communications

VOL. 42, No. 2 FEBRUARY 1972

Breathing patterns and regional ventilation distribution in tetraplegic patients and in normal subjects. B. BAKE, A. R. FUGL-MEYER and G. GRIMBY

The effects of synthetic human and salmon calcitonins on electrolyte excretion in the rat. C. C. WILLIAMS, E. W. MATTHEWS, JANE M. MOSELEY and I. MACINTYRE

xxii
### Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urinary excretion of nitrogen from $[^{15}\text{N}]$valine, $[^{15}\text{N}]$leucine and $[^{15}\text{N}]$isoleucine in malnourished and recovered children. W. W. C. Read, D. S. McLaren and Marie Tchalian</td>
<td>139</td>
</tr>
<tr>
<td>The antidiuretic action of diazoxide, J. E. F. Pohl, H. Thurston and J. D. Swales</td>
<td>145</td>
</tr>
<tr>
<td>Studies in man with $^{18}$F. D. J. Hosking and M. J. Chamberlain</td>
<td>153</td>
</tr>
<tr>
<td>Electrolyte changes in patients with subarachnoid hemorrhage. I. M. James</td>
<td>179</td>
</tr>
<tr>
<td>Orthostatic changes of haemodynamics, renal function, plasma catecholamines and plasma renin concentration in normal and hypertensive man. M. Molzahn, Th. Dissmann, S. Halim, F. W. Loimann and W. Oelkers</td>
<td>209</td>
</tr>
<tr>
<td><strong>SHORT COMMUNICATION</strong></td>
<td></td>
</tr>
<tr>
<td>Calcium shift into bone: a calcitonin-resistant primary action of parathyroid hormone, studied in rats. C. J. Robinson, B. Rafferty and J. A. Parsons</td>
<td>235</td>
</tr>
<tr>
<td><strong>MEDICAL RESEARCH SOCIETY (Annual General Meeting held on 10 December 1971)</strong></td>
<td></td>
</tr>
<tr>
<td>Demonstrations</td>
<td>7P</td>
</tr>
<tr>
<td>Symposium on the Red Cell</td>
<td>8P</td>
</tr>
<tr>
<td>Communications</td>
<td>10P</td>
</tr>
</tbody>
</table>

Vol. 42, No. 3  
March 1972

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total and nutritional blood flow in the finger. J. D. Coffman</td>
<td>243</td>
</tr>
<tr>
<td>Role of pulmonary vagal afferent nerve fibres in the development of rapid shallow breathing in lung inflammation. Diana Trenchard, D. Gardner and A. Guz</td>
<td>251</td>
</tr>
<tr>
<td>Distribution and properties of Na$^{+}$,K$^{+}$-ATPase in human post-mortem kidney and the effects of diuretics. B. R. Tulloch, K. Gibson and P. Harris</td>
<td>265</td>
</tr>
<tr>
<td>Effects of acutely induced changes in arterial pH on pulmonary vascular resistance during normoxia and hypoxia in awake dogs. O. G. Thilenius and Carol Derenzo</td>
<td>277</td>
</tr>
<tr>
<td>Effect of phosphate supplements on soft-tissue calcification and bone turnover. Jenifer Jowsey and P. Balasubramaniam</td>
<td>289</td>
</tr>
<tr>
<td>Effect of increased sodium ion on arterial sodium and reactivity. G. S. Harris and W. A. Palmer</td>
<td>301</td>
</tr>
<tr>
<td>Intracellular buffering in the dog at varying CO$_2$ tensions. J. L. Gamble, Jr, P. J. Zuromskis, J. A. Bettice and R. L. Ginsberg</td>
<td>311</td>
</tr>
</tbody>
</table>
Iron-deficiency anaemia: its effect on transfer factor for the lung (diffusing capacity) and ventilation and cardiac frequency during sub-maximal exercise. J. E. Cotes, J. M. DABBS, P. C. ELWOOD, A. M. HALL, A. MCDONALD and M. J. SAUNDERS 325

Insulin disappearance after intravenous injection and its effect on blood glucose in diabetic and non-diabetic children and adults. L. STIMMLER, K. MASHITER, G. J. A. I. SNODGRASS B. BOUCHER and M. ABRAMS 337

An evaluation of rebreathing methods for measuring mixed venous CO₂ during exercise. S. GODFREY and ERIANA WOLF 345


Respiratory function tests in older people. J. S. MILNE and J. WILLIAMSON 371

Clinical studies on inflammation in small diarthroial joints. Technetium (⁹⁹mTc) percentage uptakes in various arthritides and studies on the effect of aspirin in rheumatoid arthritis. W. C. DICK, K. E. COLLINS and W. W. BUCHANAN 383

Effects of uraemic serum, urea, creatinine and methylguanidine on glucose metabolism. P. L. BALESTRI, P. RINDI, M. BIAGINI and S. GIOVANNETTI 395

Oral contraceptives and folate metabolism. M. E. M. STEPHENS, I. CRAFT, T. J. PETERS and A. V. HOFFBRAND 405

A comparison of leucocyte potassium content with other measurements in potassium-depleted rabbits. J. PATRICK and BERENICE BRADFORD 415

A role for sodium-retaining steroids in the regulation of proximal tubular sodium reabsorption in man. JOHN R. GILL, JR, CATHERINE S. DELEA and F. C. BARTTER 423

An intrinsic rhythm of urinary calcium excretion and the specific effect of bedrest on the excretory pattern. M. C. MOORE EDE, M. H. FAULKNER and BARBARA E. TREDRE 433

Observations on the measurement and regulation of the sodium content of human erythrocytes. E. K. M. SMITH 447


Experimental vitamin B₆ deficiency and the effect of oestrogen-containing oral contraceptives on tryptophan metabolism and vitamin B₆ requirements. D. P. ROSE, R. STRONG, P. W. ADAMS and P. E. HARDING 465

Analysis of changes in the renin-angiotensin system during pregnancy. S. L. SKINNER, EUGENIE R. LUMBERS and E. M. SYMONDS 479

The response of blood pressure to infusion of angiotensin II: relation to plasma concentrations of renin and angiotensin II. R. H. CHINN and GISELA DÜSTERDIECK 489

Peripheral airways resistance, static recoil and the forced expiratory volume. RUTH M. CAYTON and P. HOWARD 505

Renal calculi and self-medication with multivitamin preparations containing vitamin D. W. H. TAYLOR 515

MEDICAL RESEARCH SOCIETY (Meeting held on 11 February 1972)

Demonstrations 15p

Communications 15p
Contents

Acknowledgment to referees of papers submitted during 1971
Effect of intraluminal concentrations on the impairment of glycine absorption by glucose in the human jejunum. G. C. Cook
Renal vasodilatation: studies on the site of action in the nephron. S. G. Massry and J. J. Ahumada
Intravascular haemolysis and urinary iron losses after replacement of heart valves by a prosthesis. S. D. Slater and G. S. Fell
Influence of patient age on forearm and systemic vascular response to hypoxaemia. T. F. Krawiec, G. W. N. Eggers, Jr and L. J. Kettle
Metabolic effect and uptake of [3H]digoxin in the forearm of man. R. I. Ogilvie and G. A. Klassen
Vascular reactivity in post-deoxycorticosterone hypertension in rats and its relation to 'irreversible' hypertension in man. L. J. Bellin and G. Ziakas
Metabolic changes in active chronic hepatitis. K. G. M. M. Alberti, C. O. Record, D. H. Williamson and R. Wright
Inhibition of sodium and potassium transport in separated renal tubule fragments incubated in extracts of urine obtained from salt-loaded individuals. E. M. Clarkson and H. E. de Wardener
Carbon monoxide, tissue hypoxia, and sensory psychomotor response in hypoxaemic subjects. J. M. Ramsay
Mechanisms of excretion of some low-molecular-weight bases in the rat. E. Bourke, A. M. Asatoor and M. D. Milne

Short Communications
The effect of defibrination on nephrotoxic serum nephritis in rabbits. P. Naish, G. B. Penn, D. J. Evans and D. K. Peters
The measurement of the extracellular space in an in vitro system of human leucocytes. J. Patrick and P. J. Hilton

Medical Research Society (Meeting held on 17 March 1972)
Demonstrations 23P
Symposium on Ion and Water Movements through Living Membranes 23P
Communications 26P

Pathogenesis of arterial hypertension after the constriction of the renal artery leaving the opposite kidney intact both in the anaesthetized and in the conscious dog. G. Bianchi, E. Baldoni, R. Lucca and P. Barbin
Contents

Exchangeable potassium content and distribution in normal subjects and uraemic patients on chronic haemodialysis. V. RETTORI, T. GRAL, S. G. MASSRY and M. F. VILLAMIL

Renin and control of arterial blood pressure during terminal renal failure treated by haemodialysis and by transplantation. A. VERNIORY, P. POTVLIEGE, J. J. VAN GEERTUYDEN, P. VEREERSTRAETEN, P. KINNAERT, M. STAROUKINE and C. TOUSSAINT

Water and sodium excretion after blood volume expansion under conditions of constant arterial, venous and plasma oncotic pressures and constant haematocrit. B. LICHARDUS and A. NIZET


Reversibility of airways obstruction in chronic bronchitis. T. W. ASTIN

A study by perfusion techniques of the absorption abnormalities in the jejunum in adult coeliac disease. R. I. RUSSELL, J. G. ALLAN, V. P. GERSKOWITCH and J. W. K. ROBERTSON


Relationship between haemodynamic and respiratory function in patients with myocardial infarction and left ventricular failure. ANNE E. TATTERSFIELD, M. W. MCNICOL and R. W. SILLETT

The effect of acute portacaval shunting in dogs on cerebral and peripheral blood flow and metabolism. I. M. JAMES, LINDSAY MACDONELL and C. XANALATOS

SHORT COMMUNICATIONS

Increased adenosine triphosphate concentration in erythrocytes in neurofibromatosis. L. KULLMANN, G. E. J. STAAL and H. W. WOUTERS

Elevation of alcohol dehydrogenase activity in the subclinically scorbutic guinea-pig. MAUREEN O’KEANE, M. R. MOORE and A. GOLDBERG