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**VIEWS FROM THE PAST** *Ronald Thomson Grant 1892–1989*


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After leaving the Army in 1919 at the age of 27, Grant took a house job at the Ruchill Fever Hospital, Glasgow and learnt to use a Mackenzie polygraph which happened to be there. This aroused his interest in cardiology and Dr (later Sir) John McNee obtained a post for him in Dr (later Sir) Thomas Lewis's Medical Research Council funded cardiographic department at University College Hospital, London, where he was to stay for 14 years. Lewis was working intensively on atrial flutter and fibrillation and had just proposed his famous hypothesis of "circus movement" to explain their mechanism. Grant's first paper with C C Iliescu was a comparison of the effects of four cinchona alkaloids on the atrial and ventricular rates in atrial fibrillation; quinidine was the most effective.

Then in 1923 Grant and Lewis wrote a 78 page paper entitled "Observations relating to subacute infective endocarditis." This included a good histological study showing that the position of the valve annulus in the aortic wall would reliably distinguish a congenital from an acquired bicuspid aortic valve. Grant cut and stained all the sections himself. His interest in cardiac pathology continued in three papers on congenital heart disease based on cases of partial heart block in single ventricle, congenital pericardial deficiency, and anomalous coronary arteries. He also wrote on the comparative anatomy of the coronary arteries. By 1923 Lewis had completed his electrocardiographic research and had started to work on the vascular reactions of the skin to injury, designating the red line flare and weal produced by a heavy stroke to the skin as the "triple response". Grant and Lewis then showed that many different forms of injury gave this response and by a long series of simple but intellectually brilliant experiments they showed that injury releases a histamine like body from the tissue cells. They called it "H substance".

By 1932 Grant had completed a remarkable 10 year follow up of 1000 former soldiers with organic heart disease. It had been the first task given to him on joining the department and he wrote it up in a 58 page paper with 147 pages of tables. Many features were analysed and he showed that the two best prognostic indices were exercise tolerance and cardiac enlargement. This large statistical study must have been one of the first of its kind. It included a pioneer controlled trial of treatment in which 175 patients with syphilitic heart disease were given either arsenic, mercury, and iodides; or iodides only; or placebo. Death rates at 10 years were 48%, 64%, and 67% respectively.

Lewis's campaign to promote clinical science was now in full swing. He was keen to establish departments of clinical research elsewhere and persuaded the Medical Research Council to set up one at Guy's Hospital with Grant as director. (Lewis's salary was now being met by the Rockefeller Foundation which released Medical Research Council funds for the new



post.) Their association continued in the Medical Research Society. Later in life Grant told me that he had been happy working in the department with no wish to leave despite the fact that "the discomfort was that you were all the time aware of your own deficiencies when you were with Tom. He found it easy to see and put things clearly and if you did not—well you were just a fool and you were pretty well told so. But if you fought back and showed reason he would take it easily. There was a zeal for the truth and you felt this man is really serious and you put up with a hell of a lot from a man of that quality. Sometimes I felt I must get out of this I can't stand it any more but then again you felt I'll beat him—that was the feeling he aroused in you."

In his last years at University College Hospital Grant's interests had turned to the peripheral circulation and his first paper from Guy's Hospital with H E Holling was on the vascular response of the limb to body warming with evidence for sympathetic vasodilator nerves. Subsequent papers were on polyarteritis nodosa and pulmonary fat embolism.

The heavy bombing of the London docks in 1940 led to many severely injured patients being admitted to Guy's Hospital and at the suggestion of Dr E B Reeve, Grant set out to study shock—not an easy task. For a while the famous philosopher L Wittgenstein became his technician having first come to Guy's Hospital as a porter to help the war effort. Remarkably, at the age of 52 Grant formed the Royal Army Medical Corps Traumatic Shock Research Unit. He had the rank of Lieutenant-Colonel and pursued his studies for several months during the Italian campaign sometimes working within 10 miles of the battle front.

He set high standards and could be a demanding person to work with but he was essentially a kind, friendly, generous, and approachable man whose modesty added to the respect in which he was held.

ARTHUR HOLLMAN