psychiatry. In terms of modern learning theory the primary drive for anxiety was pain; neural stimuli associated with pain caused a fear response which resulted in a secondary drive stimulus of anxiety.

Dr. M. H. Lader (London) pointed out that from the standpoint of psychophysiology there were two approaches to the investigation of anxiety. Attempts might be made to induce anxiety in normal subjects or psychiatric patients by various stimuli, or differences might be sought between patients complaining of anxiety and normal subjects. Several physiological values could be used for study of anxiety, mostly in the realm of the autonomic nervous system—such as blood pressure, heart rate, finger pulse volume, or skin conductance. A reciprocal relationship existed between anxiety and depersonalization; thus values such as skin resistance underwent great change in anxious patients with episodes of depersonalization.

Dr. J. Smythies (Edinburgh) dealt with the central brain mechanisms involved in anxiety. Fear reactions seemed to be controlled in general by a complex system, including the limbic structures and in particular the amygdala, hypothalamus, and reticular formation. Swedish workers had related these mechanisms to chemical findings, for they had shown that, whereas the cortex mainly runs on acetylcholine, the limbic system, hypothalamus, and reticular formation contained large quantities of noradrenaline and serotonin, and there were actually different neurons with specific chemical transmitters—noradrenaline, serotonin, and dopamine. He had also been able to relate the action of the hallucinogen mescaline—an analogue of adrenaline—to the anxiety level in the subject; terror and psychosis tended to be induced in people with a high resting level of anxiety or those who became frightened during the experimental use of the drug.

Dr. M. Vartanian (Moscow) had shown that intravenous injection of serum from anxious patients into rabbits led to a rise in noradrenaline content of the hypothalamus, quite apart from the usual stress reaction due to injection of foreign serum. He had also demonstrated autoimmune reactions in persons under intense stress, for the serum of patients in acute psychiatric states frequently contained antibodies to brain proteins, as did that of 40–50% of normal subjects under intense stress.

Dr. J. Bowlby (London) said that the cause of the separation anxiety in children deprived of their mother was something of a puzzle, but recent work on affectional bonds in birds and mammals might hold the clue. The bonding and attachment behaviour of animals presumably served the purpose of protection from predators and was probably not related primarily to food or sex, as had been suggested in the past. Just as the bonded animal temporarily separated from its mate would search for the latter and exhibit distress until it was found, so the human adult who had lost a spouse would for a while after bereavement go through a period of behaviour which could be interpreted as a search for the lost object, as Dr. C. Murray Parkes (London) showed from his studies of widows.

Separation anxiety could also be manifested as a result of separation off a political system, and Dr. W. von Bayer (Freiburg) discussed his studies of the victims of political persecution in the Third Reich, at least one-third of whom retained appreciable lasting psychiatric effects of their experiences.

Genetic and Environmental Factors

Studies on twins by Dr. Eliot Slater and Dr. J. Shields (London) had shown that inherited factors played a part in predisposing to anxiety. Nevertheless, the environmental factor might often be the dominant one.

The President of the Symposium, Dr. W. Sargant (London), devoted much of his presidential address to his conviction that drug treatment of anxiety was of paramount importance, after pointing out to his hearers that anxiety was perhaps the major psychiatric problem of the day, as shown by the 43 million prescriptions for psychotropic drugs issued by practitioners in the National Health Service in a recent three-year period, mostly for anxiety and tension. He reiterated his faith in the monoamine oxidase inhibitor group of antidepressants in the management of phobic anxiety states in persons of good previous personality, and in the usefulness of antidepressants in general, perhaps combined with electroplexy, in depressive tension and anguish. He felt that there was still a place for frontal leucotomy in patients without response to drugs or electroplexy.

Dr. M. Gelder (London) was concerned with the efficacy of specific desensitization in the treatment of anxious patients with isolated phobias. He considered this treatment superior to either group or individual psychotherapy, but only as regards removal of the phobia. Desensitization did not lower the level of general anxiety.

A specialist in physical medicine, Dr. F. Cooksey (London), drew attention to the frequent failure of doctors to take into account and assess the degree of anxiety accompanying physical disabilities, as exemplified by the patient with low back pain or a stroke. Ideally any department concerned with rehabilitation should have a psychiatrist working in it, and he should be consulted early and not as a last resource.

NEW APPLIANCES

Grooved Probe Dilator: Aid to Vascular Anastomosis

Mr. D. G. A. Eadie, senior lecturer in surgery, the London Hospital, writes: An instrument has been designed to facilitate the anastomosis of small blood vessels where accurate insertion of the corner suture is essential to achieve a perfect technical result. It has a threefold function: firstly, the groove allows the needle to be placed and recovered with ease—that is, at the corner of the vessel to be sutured (Fig. 1); secondly, the probe itself acts as a dilator; and, finally, once the probe is in position it acts to steady the vessel, thus eliminating the need to grasp the vessel with dissecting forceps.

The probe dilator (Fig. 2) is constructed of polished stainless steel to prevent injury to the vessel endothelium. The head is detachable from a malleable copper rod to permit thorough cleaning. Four different-sized heads are available, ranging from 4 to 7 mm. in diameter.

This instrument is available from the Genito-Urinary Manufacturing Company Limited, 28a Devonshire Street, London W.1. The prototype was made by Mr. F. H. Watson, of the London Hospital instrument department.