Equipment Made at Little Cost

ANESTHESIA "SPACE HELMET"

A trip to the operating room can be made enjoyable for children by using special equipment for the smooth, effortless induction of anesthesia.

A plastic helmet, a replica of those worn by Air Force jet pilots, has been modified by an anesthesiologist at MDAH, to allow the child to skip the critical period of breathing a pungent gas involved in the induction of anesthesia. The child, wearing the "space helmet" may be administered nitrous oxide and oxygen without realizing that he is going to sleep.

The total cost is approximately $3.00. A headgear, seen in a toy shop, had a clear plastic visor plus an attached simulated radio microphone. A rubber hose was substituted for the radio wires and placed along the temporal portion of the helmet leading over the left shoulder. A small copper tube was fixed to the back of the helmet so that a good connection to the tube from the anesthesia unit could be made.

With the helmet on the child's head, chin strap hooked, he can pilot an imaginary jet plane while a mixture of gasses is directed at his face from the microphone. Gradually the child becomes drowsy. In a short time he is asleep and ready to receive complete anesthesia for the operation.

This method has proved successful and satisfactory for all persons concerned. Developed and made by a staff member, the inexpensive helmet is well worth the effort to use it, for it relieves the psychic fears, fright, and struggling of children undergoing induction of anesthesia.

NEW PROCEDURE FOR BLADDER CARCINOMA

Radioactive Bromide Used

The physics department, one of the most essential in the M. D. Anderson Hospital, not only conducts basic research, but also assists in advising on new procedures of irradiation.

One of the newest procedures is the use of a radioactive solution for the treatment of patients with multiple papillomatosis of the urinary bladder. This technique, developed at the Royal Cancer Hospital, now the Royal Marsden Hospital, England, by D. M. Wallace, M.D., G. L. Walton, M.D., and Warren K. Sinclair, Ph.D., now physicist at MDAH, is in use at Anderson Hospital.

The only possible surgical treatment of generalized papillomatosis of the urinary bladder, which inevitably results in numerous areas of malignant degeneration, is a total cystectomy. This operation, although nowadays feasible, is still of a very serious nature with significant functional effect on the kidneys. Any procedure which helps avoid it, therefore is worth-while.

Bromine 82 is an isotope emitting mostly gamma rays. The radioactive bromide solution, instilled in a latex bag placed in the patient's bladder, produces a localized irradiation of the bladder mucosa with, at 3 mm, only half of its intensity. Therefore, (Continued on Page 2)
Radioactive Bromide

(Continued) the muscular mucosae is partially spared and the danger of contracted bladder—the greatest and most serious complication of whole bladder irradiation—is less likely to occur. If the procedure fails to cure the patient, or if there is a recurrence of the disease at a later date, a total cystectomy is still possible, and there has been no jeopardy to the life of the patient.

The procedure requires special equipment for the preparation and administration of high specific activity radioactive solutions. If no special precautions were taken during the half-hour use of the 200 to 250 millicurie of this one million volt gamma ray emitter, the operators would get their weekly tolerance of radiation in about five minutes. Therefore, the whole procedure must be carried out by remotely controlled equipment. The actual preparation of the solution must take place behind lead shielding. A specially constructed, lead shielded, physical apparatus, mounted on a mobile cart with a series of containers and graduated tubes, is used for the instillation of the solution into the patient’s bladder.

The equipment in use at MDAH was constructed in the physics workshop. In this workshop, specially trained men are working on the design and production of both large and small pieces of equipment which are necessary either for research or for the treatment of cancer patients.

Multiple papillomatosis of the urinary bladder is a rare disease; therefore, this procedure is only applicable in very selected conditions. Due to a co-ordinated program within various hospitals in London, this procedure has been used in the Royal Marsden Hospital in more than 50 instances with a minimum follow-up showing that many bladders can be saved.

GYNECOLOGY PATIENT CLASSIFICATION

About 250 new cases of carcinoma of the cervix are seen at MDAH each year. Carcinoma of the corpus, ovary, and vulva are seen in a lesser number.

Patients are admitted on one of three classification bases: 1) A regular patient who has been referred for diagnosis and treatment; 2) A consultation patient, who receives the diagnostic “work-up” in the clinic and, if recommended by the referring physician, may be transferred into the first category; and 3) the patient with completed diagnosis who is admitted to the clinic for opinion only. In this case, after the patient’s history is reviewed and an examination is made to evaluate the patient’s status, recommendations for further care are sent to the referring physician. The initial study is done on an out-patient basis and requires from 2 days to one week depending on the classification of the patient.

When the patient first visits the clinic she has a social service interview. At this time many of her personal questions are answered and she acquires an idea of what to expect during the diagnostic “work-up”. The interviewer, if necessary, assists the patient in locating housing and transportation so she is able to find her way to and from the hospital and thus be able to keep clinic appointments.

Following the interview the patient is seen by a member of the gynecology staff for a complete history and physical examination.

When all reports are available the senior gynecology and radio-therapy staff members conduct a final evaluation of the patient’s history and findings for the planning of treatment.

The majority of cases are treated by radiation therapy. The relative amount of radium or x-ray depends upon the advancement of the disease. Under special circumstances some of the patients also may undergo surgery for pelvic lymphadenectomy. The corporal carcinomas are treated with both radium and surgery. The ovary is treated primarily by surgery. However, if the ovary has ruptured and the problem is one of multiple small seedings by carcinoma on the serosa of the abdomen or if ascitic fluid formation is a problem, radioactive gold is instilled intraperitoneally. When the use of gold is anticipated, the surgeon will place a polyethylene tube in the abdomen during surgery to facilitate the gold solution instillation at a later date.

A few cases which are beyond any possible further irradiation therapy (i.e. local recurrences) are accepted for radical pelvic surgery. Since this extensive operative procedure carries with it both a significant operative mortality and morbidity and requires prolonged post-operative care, only cases which have a reasonable chance of cure are submitted to the operation.

Special clinical studies are being conducted which are designed to test the feasibility of extending the range of therapy, especially in carcinoma of the cervix, with the use of the 24 million volt Betatron. A long range “follow-up” program will be essential for proper evaluation of results.

On completion of this examination a program of laboratory and x-ray studies is outlined for the patient. Routine laboratory work includes a chest and kidney x-ray, urinary tract excretion studies, complete blood count, routine urinalysis, Kline-exclusive STS, blood typing, both major and Rh, BUN and blood sugar.

Routine biopsies are obtained from all new patients with suspicious lesions. The referring physician’s medical certificate is checked to see if previous biopsies have been taken and if the pathologist’s report has been sent for review. It is most important to have this report and to review the slide from which it was made as much additional information may be obtained for the patient’s better care.
LISTON APPOINTED ASSISTANT DIRECTOR

David E. Liston, M.D., (Col., U. S. Army Medical Corps, retired) has been appointed Assistant Director of The University of Texas M. D. Anderson Hospital and Tumor Institute. He fills the vacancy left by the semi-retirement of Dr. Roy C. Heflebower, who will remain at MD AH as Consultant on Gifts and Grants.

Dr. Liston received his A.B. degree from Cornell University in 1924 and his M.D. degree from Harvard University School of Medicine in 1928. He entered the Army in 1928, and at Army general hospitals specialized in diseases of the chest and internal medicine. He is a Fellow of The American College of Physicians and of The New York Academy of Medicine.

In 1941, as Chief of the Training Doctrine Branch in the Office of the Director of Military Training, he was responsible for the preparation of all training materials for the Army's technical services. During World War II, he was Deputy Chief Surgeon of the European Theater of Operations. After the war, he served as Chief of Information in the Office of Information and Education, a branch of the War Department's Special Staff. In 1949 he became Surgeon of the Fourth Army Area at Fort Sam Houston.

From 1952 to 1955, Dr. Liston was Deputy Chief Surgeon of the U. S. Army in Europe. On return from Europe Dr. Liston served as President of the Army Medical Service Board in Washington, D. C.

Dr. Liston has served as Editor of the ARMY MEDICAL BULLETIN. He was born in Ogdensburg, New York in 1900. Dr. Liston completed training at the National War College, the Command and General Staff School, the Army Medical School, Medical Field Service School, and the Infantry School Regular Course. He has received the Legion of Merit and the Bronze Star with an Oak Leaf Cluster.

ENDOCRINE MEETING

October 22-27, 1956

Twenty-three clinicians and investigators from various parts of the country will compose the faculty for the 8th Postgraduate Assembly in Endocrinology and Metabolism. It is sponsored jointly by The Endocrine Society, M. D. Anderson Hospital and Tumor Institute, where it will be held, and The University of Texas Postgraduate School of Medicine.

The course is designed to cover the main aspects of diagnosis and therapy in the field of endocrinology and metabolism for the physician in general practice and for those in other specialities who wish to have a general knowledge of this rapidly growing field.

Registration is limited to 100. Tuition fee is $100.00 which will be paid to The Endocrine Society for assembling the out-of-state faculty. Dr. J. B. Trunnell, MDAH, and Dr. Grant Taylor, Dean of The University of Texas Postgraduate School of Medicine, Houston, Texas, will furnish information regarding the program and registration.

1957 SYMPOSIUM

The Eleventh Annual Symposium on Fundamental Cancer Research, with the topic, "Viruses and Tumor Growth", will be held at MD AH March 7, 8, and 9, 1957.
The Friday morning program will consist of a review of the present knowledge of the spread of cancer; treatment policies based on concepts developed during the last ten years; and the presentation of cases covering the spectrum of problems of primary treatment, including the importance of quadrants, previous biopsies, local and regional extensions, and pregnancy.

The Friday afternoon meeting will be opened by the Vice President in Charge of Medical Affairs for The University of Texas M. D. Anderson Hospital and Tumor Institute, Houston, Texas. Dr. Melvin A. Casberg. His discussion of the surgical treatment of cancer of the breast will be followed by a review of the present concepts of radiotherapy in breast cancer. The afternoon program will be concluded by the presentation of cases to illustrate problems of management of recurrences in local and regional areas, such as in the opposite breast, nodules in scar, subpectoral region, and parasternal nodules.

Friday evening, Dr. Ian Macdonald, Associate Clinical Professor of Surgery at UCLA, and President of the California Division of the American Cancer Society, will be the dinner speaker. His topic is "Statistics in Breast Cancer".

Saturday morning’s program will be opened by Dr. Macdonald with a discussion of the hormonal management of late and disseminated carcinoma of the breast. Cases will be presented and panel members will discuss various methods of treatment.

APPLICATION FOR ADMISSION, which is sent to the physician, must be completed and signed by the patient. This form includes the following pertinent information: patient’s name, address, age, sex, race, nationality, religion, marital status, arrangements for living accommodations while in Houston and that address, the patient’s nearest relatives and their addresses, parental names, the parents’ birthplace and status, whether or not the patient has hospitalization insurance and his financial status. The application also asks for the name of a relative or agency who will assume responsibility for care of the patient upon completion of treatment at M. D. Anderson Hospital.

NOTIFICATIONS OF APPOINTMENTS are sent to both the referring physician and the patient when the two forms have been received. Also notified are the appropriate clinic and hospital personnel.

REGISTRATION takes place when the patient reports to the clinic information desk. A medical record number is assigned and the two forms (further completed if need be) and any accompanying correspondence begin the medical record.

THE SOCIAL SERVICE INTERVIEW takes place when the registration is complete. The problems of the patient and his family are appraised in order that difficulties may be resolved so that the patient feels free to keep his appointments and to follow through with the treatment recommended. During the social service interview the patient’s social history and family history are taken. With this completed the patient is ready to undergo the clinical work-up or physical examination.

The hospital relies on the patient’s personal physician for the proper selection of the cases he refers. Much of the hospital’s efficiency and usefulness is dependent upon his interest.