southwestern medical school - graduate school of biomedical sciences - school of allied health sciences

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DALLAS--An eight-year old girl will live despite "as large a burn injury as a human being has ever survived," Dr. Charles Baxter, professor of surgery at The University of Texas Southwestern Medical School announced Saturday.

Platinum-haired Sherry White, daughter of Mr. and Mrs. William White of Dallas, was burned over 92 per cent of her body in an accident in her home on May 10.

"In the past--and not too long ago--we would have lost Sherry," Dr. Baxter said. Sherry's survival, he continued can be attributed to the latest techniques in burn research which have been developed at Southwestern Medical School and other centers, plus the establishment of the new Dallas Skin Bank which provided the needed human skin for grafting. She is hospitalized in the controlled environment of the Parkland Pediatric Burn Unit.

Sherry was injured by the ignition of gasoline being used to clean tar from her feet.

"Sherry's burns," he continued, "covered her entire body except for the sole of her right foot and the back of her head where her hair grew." She received second and third-degree burns.

In fact, continued the immediate past president of the American Burn Association, he is not aware of another person with burns the extent of Sherry's who has survived.

"In the past tow years we've been able to bring four or five patients to this point but we couldn't get the human skin covering so we lost them," he said.

Why did Sherry make it when most burn cases with over 50 per cent involvement don't? A combination of techniques including new concepts in nutrition, new ways of administering antibiotics, isolation, monitoring of tissue for bacteria, use of human skin as protective early surgical removal of burn tissues and others all contributed to the medical victory. However, Dr. Baxter stressed without good nursing care, the skin bank, the new techniques and the latest advancements in research used on Sherry would have been for nothing.

One of the main reasons was use of human skin from the newly-established Dallas Skin Bank.

This bank, unfamiliar to most people is now just six months old. It had been in existence only two months at the time of Sherry's accident. The bank is both a repository for human skin kept viable by freezing and a research center for developing some of the new techniques which were used with Sherry. Actually, according to Baxter, the role of research will be the key to the future success and expansion of the skin bank, the doctor said. Human skin may be used for grafting immediately or frozen for later use if it is removed from the donor less than 24 hours after death. It is taken from the chest, back and the back of the legs. Only the outermost layers of skin are taken so that the body is not disfigured in anyway. Only the well-trained eye can tell the areas from which the skin has been taken.

In the major hospitals in Dallas, the chaplains may be contacted about making donations.

Sherry's mother was her only live donor, having similar skin as shown by blood and tissue typing. But had it not been for the families of six other persons who had died, there would not have been enough skin available for Sherry's survival. Skin can be donated either by a person's including the donation in his will or by his family after death. This skin, too, must be matched by blood and tissue typing techniques.

Included in the research going on at the bank are studies in growing human skin in cultures. The researchers are working with small pieces of skin, ultimately aiming at being able to grow whole sheets needed for large skin grafts.

Although pigskin is still invaluable in treating smaller burned areas, human skin grafts are needed for cases in which the burned area of the body exceeds 50 per cent. The grafts cover the exposed wounds, keeping infection from spreading, and help regenerate the growth of the patient's own skin. Of course the patient eventually rejects the foreign skin, but not all at once. "The grafted skin from another human actually separates off over a period of time," the physician said.

Sherry will probably be hospitalized here another month or six weeks before going to probably Galveston to the Shrine hospital for plastic surgery. Working with Dr. Baxter in caring for the brave little pixie-eyed girl is the burn team composed of Dr. William Curreri; Janet Marvin, R.N.; and Dr. Phala A. Helm. All are faculty members at the Dallas medical school.

Dr. Baxter's chief concern is the healing of the skin, while Dr. Curreri, assistant professor of surgery, is involved in nutritional research in the burn patient. Ms. Marvin, instructor in surgical nursing, is a clinical specialist in burn care, and Dr. Helm is an assistant professor in physical therapy and acting chairman of physical therapy and rehabilitation. The team is assisted by a nursing staff of the Pediatric Burn Unit.

Dr. Baxter adds a bit of motivation by "betting" Sherry a dollar for each difficult feat she must perform for him. A dollar for standing on her feet. A dollar for straightening her elbow. A dollar for lifting her arms out together.

The dollar bills are kept in a brandy-keg bank around the neck of Sherry's stuffed St. Bernard who lives at the hospital with Sherry now.

"And she always collects," one of the nurses stressed.

Among the new techniques on Sherry's case, besides grafting with human skin, was early massive excision of the burned tissue. The cutting away of the burns has traditionally been done at a later time.

Nutrition has played an improtant role in Sherry's survival, Dr.

Baxter said. "We have learned that the badly burned patient needs from
2 1/2 to 3 times his normal calorie intake. Naturally, Sherry probably
never felt less like eating.....In the past we have seen our patients
literally starved to death."

In order to supply the 3700 calories a day, the blue-eyed "73pounder" requires, a variety of approaches were used in Sherry's early
care. Besides her regular hospital trays, she was fed special nutrients
both with an intravenous drip and with nose tubes. Also her mother was
encourged to bring in Sherry's favorite foods each time she came to visit.

About six weeks ago Dr. Baxter promised Sherry a dog of her very own. Now she is the proud owner of Charley, a female Airdaile named for Dr. Baxter. Charley, freshly bathed and wrapped in a baby blanket is allowed in for occasional visits (with Dr. Baxter's permission). The rest of the time Charley lives at home with Sherry's family.

Now Sherry is on solid food entirely and has lost only one pound during the entire course of her illness. Her mother, said Nurse Marvin, brings in "goodies"--including tacos, spaghetti, soup, and even pizza--daily. Sherry is encouraged to eat almost constantly in order to get enough calories.

Infection, of course is the big danger in burn cases. Any little infection in an open wound may spell the end for the burn patient. Dr. Baxter and Curreri have developed a new biopsy technique to monitor the level of infection in the wound. A small piece of tissue is taken from the wound and cultures done with a special culturing technique enable the doctors to be aware of the danger much sconer than has been possible previously. At any warning sign treatment with antibiotics in the area can be started immediately.

Another life-saving technique developed at the Dallas medical school is sub-eschar clysis, the administration of antibiotics between the live tissue and the dead burn tissue, the surgeon said. When a new infection is starting, the topical application of antibiotics to the explicit area is added to the more traditional methods. All of these techniques, combined with the availability of the human skin, played vital parts in Sherry's survival.

According to Drs. Baxter and Curreri, the school researchers in the Burn Center are particularily involved in studying the most optimal antiobiotic, as well as nutritional, combinations.

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Life in the hospital is a bit strange to little Sherry White. Sherry had never even been away from home before that May day when she was rushed to Parkland emergency along with her father.

Sherry entered the new world of hospital beds and nurses and tubes and needles and pain--always pain--from her secure world of home, family, neighborhood and school. Instead of her sister Loretta Jean, 7, and brother Billy Jack, 15 months, Sherry has the doctors and nurses, some always in constant attendance. Instead of her room at home, she has a hospital bed made her own by the addition of family pictures and get well cards on the wall and a collection of toys in the window. Instead of the normal routine of summer and school, Sherry is caught up in a routine of burn surgery--with plastic surgery to follow.

Sherry's mother and father have both been hospitalized, but in another part of the hospital. Her father stayed in Parkland two weeks for treatment of his arms and hands which were burned in the accident, too. Her mother, Loretta White, has been hospitalized twice as a donor for skin for Sherry.

Now Sherry has a long, lonely stay in a new hospital staring her in the face. She is supposed to go to the Shrine hospital in Galveston for plastic surgery. The reasons for moving her are financial.

Although Sherry comes from a family of moderate means (her father is an assembly-line worker), they are by no means destitute. Therefore, if she were to stay at Parkland for her plastic surgery, the bill would be on a sliding scale. But the family has already run up thousands of dollars worth of hospital bills--even on a sliding scale.

"I want the best for Sherry, and if Galveston's it she should go there. But I have a husband to get off to work every day. And two other children who need me, too.

"Right now I feel that Sherry needs me more than the baby----but Galveston's such a long way off."

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