Gillies Memorial Oration*

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Prof. R. N. SINHA, F.R.C.S.

Head of the Department of Plastic Surgery Patna Medical College Hospital, Patna

I am deeply grateful to you Mr. President and your council to have invited me to deliver the first Gillies memorial oration.

At the very outset, I wish to congratulate our Association of Plastic Surgeons of India who sponsored the memorial oration and my good friend Dr. Noshir Antia of Bombay who took immense pains to initiate the same and collect funds for the above and to our President Dr. Manekshaw for getting the oration started.

I am indeed very thankful to all of you, for giving me an opportunity of paying tribute to a person, to whom I owe much more than what I can ever say. In this first oration, I propose to devote myself first to Gillies as a man and then to his 'philosophy.' To understand something of his philosophy which has influenced an endless number of his pupils throughout the world, it is necessary to know something of his life. Harold Delf Gillies was born in Dunedin, New Zealand on 17th June 1882. He came of a distinguished New Zealand family receiving his early education in Wanganui College and his medical training at Caius College, Cambridge and St. Bartholmlew's Hospital, London. He graduated in 1908, and was admitted to the fellowship of Royal College of Surgeons of England in 1910. At Cambridge he distinguished himself as a sportsman. In the Oxford and Cambridge boat race of 1904, rowing for Cambridge, though weighing nearly three stones less than his opposite number, rowing for Oxford, the celebrated daily Morning Post wrote, "he came out of the ordeal splendidly, to the utter route of his detractors." Cambridge won the race by four and a half length, 'a triumph of form over strength and weight' and credited Gillies with particular excellence. I shall now quote from his biographer Reginald Pound, "The high tribute was by no means exclusive to his rowing. Gillies played cricket, golf and billiards with intimidating nonchalance and grace, the effortlessness of one whose proficiency is mysteriously inherited rather than laboriously acquired. He was born with exceptional manual finesse. As a boy he handled the tools of an amateur wood carver with enviable precision. He painted competently in water-colours. He had a flair for drawing in easy fluent lines that seemed to flow unguided from his hands. When later he discovered the pleasure of painting in colours, the effects he produced, were those of an accomplishment that had merely been in abeyance. He learnt to play the violin with a minimum of instruction. It was, as if the God had exempted him from the need to serve any of the apprenticeships."

As Captain of the cricket team of Wan-

ganui College, he was considered the best young player in the country. His brother Bob was an ardent angler. From him, he acquired knowledge and experience that were to raise him to the highest rank among devotees of the fly Fisher's art.

One of his Cambridge contemporaries, Sir Philips Manson Bahr, the celebrated authority on tropical diseases, remembers him as a controversial figure in the dissecting room often arguing hotly with his demonstrator.' Sir Philips also recalls Gillies unpredictable streak—one never knew when his legs were going to be pulled. There were recollections of him challenging tutor's opinions and demanding explanations of lecture's obscurities--early signs of the strength of the mind, that marked his character later in life.

Norman Jewson, the renowned architect, who was at Caius College with him, has remarked on his extraordinary concentration and will power, whatever he decided to do, he did. No one could foresee the immense weight of his professional labours that time would put on him. Equally none would have doubted, even this early his ability to shoulder it.

Nature had not made him handsome but had compensated him with an eminently likeable personality. The cox of the 1905 Cambridge crew, R. Allcard, remembers him for his happy temperament and his smile that often took into uproarious laughter. His popularity soon gained him the nickname of 'Giles,' that was attached to him throughout the rest of his life. One of his contemporaries K. D. Pringle writes that 'probably none of us would dispute Giles's title as the most versatile and brilliant man of our year,' a verdict upheld by another Caius man of the time Kenneth Walker, surgeon and writer. Pringle remembers 'Gillies determination to improve his position by every means in his power.' Others met after College for coffee and conversation. He retired for study behind his close shut door, appearing only on special occasions i. e. college concerts for example he was an accomplished player on the violin.

He never pretended to know, why he chose Medicine as a career and would explain saying that since two brothers were lawyers he thought another profession ought to be represented in the family. His eventual opting for surgery may have been explicable to the technical dexterity and the originality of his mind. Coming down from Cambridge, having done well in the Medical Tripos, he finished his training at St. Bartholomew's Hospital, that ancient and famous foundation, known to generations of Londoners including doctors, nurses and patients as Bart's. The then Chief Surgeon at the hospital, Walter (Later Sir Walter) Langdon Brown, considered him one of the ablest students of the medical school.

After qualifying he became house-surgeon to D' Arey Power, Lecturer in Surgery at St. Bart's. Later he became Chief Asst. to Douglas Harmer, Head of the 'newly created ear, nose and throat. Recommending him for the post of registrar at the hospital for diseases of the throat at Golden Square, Harmer wrote, "has a thorough knowledge of general surgery and is a competent bacteriologist. He intends to devote himself

entirely to the study of diseases of ear, nose and throat. I think there is every reason to believe that he will attain to a high position is his profession." Another chief of his, George Gask, assistant surgeon at Bart's wrote that in his opinion, 'Gillies was the best house-surgeon we have had at St. Bart for some years.'

Becoming a fellow of the Royal College of Surgeons in 1906, he was given the appointment at Golden Square and at the same time awarded the Luther Holden Research Scholarship at St. Bartholomews.

The reigning E.N.T. consultant at St. Bart's was then Sir Milsom Rees, laryngologist to Their Magesties and the Royal Household and like Sir Almoth Wright, allegedly the prototype of a character in Shaw's celebrated play, The Doctors Dilemma'. Sir Milsom was looking for an assistant in his private practice. Gillies looking for a job went to see him. During the interview the conversation entirely centred on golf, and at the end, evidently satisfied, he offered him the job on five hundred pounds a year, a sum which was beyond Gillies wildest dreams at that stage of his career.

When Gillies was thirtytwo. the first World War broke out, and he promptly offered his services to the Red Cross and was sent to France to work as a surgeon with a Belgian ambulance unit.

Shortly after he met a French Surgeon called Valadier, who had organised a surgical unit at the 83rd General Hospital at Wimercuse for the treatment of jaw wounds only, a novel departure in war surgery. Here it occurred to Gillies that modern gunfire was inflicting new types of wounds requiring new surgical procedures. Valadier was repairing jaw wounds with new tissue taken from other parts of the body and was experimenting successfully with bone grafts. This was a great eye-opener for Gillies. He wrote at that time, 'I felt that I had not done enough to help the wounded and that I must bestir myself' and added 'I realise that I had struck a branch of surgery that was of immense interest to me.'

At Paris, he met Morestin, the 'most celebrated practitioner of Plastic Surgery in Western Europe' who was said to be performing unbelievable feats. After watching Morestin, he wrote 'I felt a tremendous urge to do something other than the surgery of destruction. I felt that this was the one job in the world I wanted to do'.

His enthusiasm was such that by the end of 1915, he persuaded the highest army medical authorities, that the face and jaw casualties of the war posed entirely new problems for the surgeon and an establishment devoted exclusively to solve them was of paramount importance. On January 11, 1916 Gillies received an order to report for special duty in connection with Plastic Surgery. His restless and imaginative mind had scored a memorable success.

Major facial wounds embarrassed most general surgeons. The commonest practice was to pull the edges together, put sutures, hoping that nature would do the rest. This advancement flap method of empirical surgery closed the wound, but did not replace lost tissue, causing wanton cell destruction

due to excessive tension and producing bizarre deformities making the patient look like a travesty of his former self.

Gillies was concerned that there was no royal road to restoration of faces except by reconstructive surgery. He insisted that the replacement must be as nearly as possible in terms of the tissues lost bone for bone, cartilage for cartilage, skin for skin. Battling with these war casualties, it slowly dawned on Gillies, that function was important than appearance, though priority being given to function, appearance would naturally get the next priority. He was uplifted by the idea that the activities of the plastic surgeon were essentially creative, that they demanded the vision and the insight of an artist.

Finding it difficult to explain his surgical methods by word of mouth, Gillies decided to take drawing lessons with his natural flair for drawing, so adept he became in illustrating his ideas on sketches, that they, drawn on bits of papers, books and envelopes, became a bye-word to his numerous disciples and patients.

No doubt, recalling Valadier's dental works on jaw cases, Gillies arranged for a dental surgeon to be seconded to his unit, thus pioneering another indispensable and lasting association. Today no plastic and reconstructive unit is reckoned to be complete without the association of a dental surgeon to his unit.

The surgeon and the dentist were hampered by the difficulty of anaesthesia with the patient's face a 'bloody mess'. In 1916-1917, they had to do major operations with a whiff of ether vapour or chloroform, a method which would be considered most risky and would be condemned today. The operation was interrupted three or four times for the surgeon to clear out the debris of blood and mucus in the pharynx and clear the airway. The tongue, swollen with venous congestion, always had to be held forward. The tired and anxious surgeon would clear up again and again.

By trial and error his anaesthetist Ivan Magill, an Irishman from Ulster evolved the famous Magill tube method, which consisted of passing a rubber tube down into the wind-pipe through the nose or mouth. It allowed the Plastic Surgeon more freedom than he ever had before at the operating table and gave the anaesthetist more control. In the long run, it was invaluable in its effect on researches that yielded the superior anaesthetics of today. Writing later, Gillies says that next to the 'tubed pedicle' his most important professional discovery was the "Mercy of Magill".

On October 3rd, 1917 an able seaman of the Royal Navy named Vicarage was brought into the operating theatre at Sidcup. All the skin had been burnt off his face in a cordite explosion nearly eighteen months ago. The burns had left extensive scarring with the eyelids and lower lips fanned inside out.

Gillies had planned for restoring presentable looks to Vicarage's completely burnt face by cutting away the skin of the chest to a depth of $\frac{1}{4}$th of an inch, making a sheet sufficient to cover the face, with the lower

end still attached to the chest to ensure a continum of blood supply. It was while raising the piece of skin from the chest that Gillies noticed its tendency to curl inwards, and in a flash of inspiration, he stitched the edges of the flaps together to form a tube of living skin which would survive practically indefinitely. Those tubes of burnt seaman Vicarage became historical treasures. They opened the door to a much bigger areas of possibilities and development than was ever hoped hitherto. They simplified grafting. They immensely widened its scope. Gillies himself had remarked then "It was a major breakthrough which I had good reason to be proud of; on the whole, the tubed pedicle was a manoeuvre that was bound to occur to any imaginative mind." As a matter of fact, FILATOFF in 1917 working on battle casualties in Odessa hit upon the same idea of forming tube pedicles. It just goes to show that "necessity is the mother of invention" and during the war with all normal lines of communication disrupted, two independent original minds separated by great distances of geography working independently came upon an ingenuous solution of a difficult problem. The human machine or in modern parlance biomedical engineering had never known such confident sculpturing.

'Renoir the French Painter, had a theory that modern progress received its greatest impulse from the 'invention of tubes.' It can be less provocatively stated that the development of modern Plastic Surgery rested mainly on Gillies's application of the tubed pedicle to his work at Sidcup.

Gillies brought greater help and consolation to the unfortunate battle casualtie with their shattered and partblown up faces than any other man in any theatre of war.

Long after the war had ended, Gillie continued with his characteristic vigour an zeal his battle with war casualties helped b T. P. Kilner (Later Professor Kilner), an host of overseas surgeons, who got thei training and initiation in Plastic Surger from the 'Master's hands'. All were impres sed by his extraordinary patience and hi staunch insistence, that over everything, th patient mattered and he was much mor than a numbered soldier. As for hi patients, their esteem for him could not b exaggerated.

Gillies often commented that his worst moments as a surgeon were, when things went wrong. New noses subsided; flaps of skin became infected and withered away; grafts failed to 'take'. Failures which Gillies chose to call his blunders, occurred chiefly because of the inexorable demand for manpower compelled him to operate too often and too soon. Surgical haste meant tissue waste. He said the greatest lesson he had learnt in the war years was 'Never do today what can be put off till tomorrow'. Rebuilding a shattered face meant more than delicate surgery. Extreme refinements of dressing technique were necessary. He defied an operating theatre covention by changing first dressings himself and taught his pupils to do likewise.

Gillies had no text-books to guide him and no one more experienced to look upto for advice. He often ruefully observed. "Unlike the trainee of today who is weaned

on small scar-excision and graduates to cleftlips, we were suddenly asked to produce half a face." His active imagination, boldness and dexterity solved seemingly insurmountable problems by visualising them well in advance.

Aided by compatriots from home and abroad, he toiled ceaselessly during the war years. Long after the war was over, he was kept busy in completing the work of reconstructions on battle casualties. As the pressure of work on battle casualties lessened and more beds were available, a few civilian patients were permitted to be taken in. One such case was a youth severely burnt during childhood, who was so badly disfigured that the boy had never been able to get a job. Gillies restored his face and with it his lost confidence. Commenting later on the case, Gillies made a startling discovery which now is wellknown to all plastic surgeons and what for him was unfamiliar territory that the injury to the subconscious mind, caused by physical disfigurements cannot be cured without correcting the deformity.

Gillies's service with the Royal Army Medical Corps ended in October 1919. He had anticipated his future to the extent of putting down his name for a vacancy at his old hospital, St. Bart's.

Two avenues were open to him now, the very enticing position of assistant surgeon at Bart's and the humbler one of chief assistant in the ear, nose and throat department with responsibility for treating any case in the hospital requiring Plastic Surgery. With possibilities of continuing his work in Plastic Surgery, he perferred this latter job to the senior job of assistant surgeon at St. Bart's because as he said then, "If I stick to Plastic Surgery, I could do more for it in the long run, than, if I developed it as a side issue. I felt that the subject was so great, that it required the whole effort for any man.' Plastic Surgery' he wrote, thereafter became the hospital scrap basket, but into it were eventually dropped cases that enabled us to inch our way up.' His fear was then, if it allowed to remain tied to the apron-strings of another discipline, not enough good work would come the way of Plastic Surgeon and the unique lessons learned during the war years could not be ploughed into other disciplines requiring reconstruction. At that time one was completely unaware of the mass of congenital deformities the multitude of traffic and industrial traumatic injuries and severe burns. At Bart's he was then chiefly seeing cases of domestic burns requiring scar excision and general tidying up. But this was not enough to contain the virile and inquisitive mind of Harold Gillies. His services were still required at Queen's hospital, Sidcup for the battle casualties. An American Surgeon, George Warren Pierce was seconded to the Queen's Hospital in 1920. Pierce writes, "Each hour spent with him was tremendously rewarding. He was indefatigable. His natural teaching ability, the gentle patience of his explanations, his flawless surgery, his brilliant management of the whole problem of reconstructive surgery-all this was invaluable experience for me."

His text-book 'Plastic Surgery of the face' was published in 1920, which was hailed by professional journals all over the world as an epoch making work.

In 1921, the Council of Royal College of Surgeons of England acknowledged the achievements of the new branch of surgery whose work was still mistrusted by some of their older members, by awarding the Cartweight medal prize jointly to Harold Gillies and Kelsey Fry for their work on Jaw injuries. Reporting the award, the 'Morning Post' stated that the result of the Plastic Surgeon's work has been very inspiring and its recognition by the Royal College of Surgeons is timely. All those who have to endure the ravages of destructive lesions or risk the misfortune of multilating accidents owe a great deal to this bold and creative branch of surgery. The war of course brought suitable conditions for its blossoming. Never before has this work been done in such bulk or subject to such searching criticism. As a result modern Plastic Surgery has been built on solid foundations. The team of Gillies, Kilner, Kelsey Fry and Magill had made its grade.

Of the 8749 facial reconstructive cases treated at the Queen's hospital, only 15 remained by the end of 1921. With the falling away of work in Sidcup, he became restive and moody and to Kilner, his main compatriot with tears in his eyes, expressed the fear that all that had been gained at Sidcup would be lost, unless some of them continued in the speciality of Plastic Surgery which they had so tenderly nurtured. But the immediate prospects in that early post-war period was gloomy and financial returns still more unrewarding.

But the crusading spirit of Gillies knew better. He finally committed himself. With a wife and four children to look after, he took the momentous decision. Plastic Surgery became his sole means of earning a living. He held honorary appointments at the Prince of Wales Hospital, Totenham and St. Andrews Hospital, Dollis Hill. In the private sphere there were days when he had nothing to do, when he questioned his luck, when his friends in other established branches of surgery seemed to strike a superior pose. But the 'never-say-die' spirit of Gillies never gave up, he started exploring avenues in civilian surgery where the lessons of reconstructive surgery so assiduously learnt during the war could be applied and he had not very long to wait. Resurfacing lesions with new skin in orthopaedic cases was a new surgical achievement. Old cases of compound fractures with non-union without adequate soft tissue coverage were considered to belong exclusively to the domain of orthopaedic surgery and were often condemned to amputation. Gillies showed that excision of all fibrous and scarred tissues over the fractured site and resurfacing them with pedicled tissue by allowing unfettered blood supply, very often brought about union in fractured limbs and in any case after the resurfacing allowed the orthopaedic surgeons to carry on their manoeuvres which were hitherto not possible.

The motoring boom of the early twenties and escalation of the industries, brought into Gillies orbit what he referred to as new fascinating cases, some of them as severe as he had treated in the war.

Among his new and fascinating cases were cases of hypospadias, not an uncommon congenital defect of male genitals the

severer variety of which makes the determination of sex at birth difficult and sometimes impossible. In most of the cases, by a series of operations, the external genitals and the plumbing were put right, much to the relief and delight of the embarrassed patient.

Equally prominent in his case books was a dreadful accident in which a girl factory worker caught her long hairs in the whirring wheels of a machine and was scalped from the back of her head almost to her eyebrows. A Red Indian could not have done it more thoroughly.

Some of the cases coming to him after years of suffering following burns were postburns, hypertrophic scars and keloids. Gillies was the first person who anticipated the beneficial effects of radiotherapy then in a nascent stage, used as a supplement to surgery and produced wonderful beneficial results.

His success with skin grafts for burns in particular encouraged some of the leading surgeons in the hospitals to give him beds, a valuable gesture of goodwill. He said, "Literally we got beds, if we produced results. The general surgeons affirmed their belief in the new speciality by referring their cases to us."

Each year was bringing him new evidence of a vast amount of suffering due to disfigurement which had no connection with war. Confronted with the first syphilitic nose, he devised epithelial inlay (skin grafting cavities), which could effectively remove the stigma of this ravaging disease, confirming a benefit on a group of patients who were rarely accorded sympathy. Years later, when he was in India, he used the same technique in treating similar lesions of nose arising out of leprosy. Scars following burns or other trauma, cleft lip and palates, birth marks, lupus naevi, deformities of the chin, nose and ears, deformities arising from excision of tumours were all a source of extreme psychic distress arising out of physical ugliness. He was one of the first persons to appreciate the intimate link between psyche and physical deformities.

Cleft lips and palates made their victims social recluses. Hideous birthmarks ruined otherwise attractive faces. The marks of illness, grief and age closed doors to professional opportunities and too often to personal happiness. Again and again, Gillies found depression thrown off and a useful life resumed, when he got a good result. Gillies and Kilner corrected hundreds of cleft lips and palates in some instaces restoring patients to social life from which they had long been excluded. They treated children made miserable by jeers and taunts of their normal playmates; some had been kept hidden from the sight of all outsiders. In cleft palate, recovery of function, specially of speech was their major aim, which both of them tirelessly pursued. They both succeeded in emphasising the need to give more priority to function rather than mere form or appearance and succeeded in establishing one of the cardinal principles in Plastic and Reconstructive Surgery.

Dealing with congenital deformities they became interested in the role of heredity in

such cases. At first groping in the dark, their knowledge and experience were empirical. But with trial and error they found that heredity did not account for all the cases of congenital deformities. His teachings influenced some of his pupils to take up the work in right earnest, foremost amongst whom was Fogh-Anderson of Denmark, whose work on genetic implications and the effect of environment on congenital deformities is a classic one.

In those years Gillies made valuable contributions to the nucleus of world's greatest film library founded by Kodak Ltd. and assisted in pioneering clinical photography and was the first leading surgeon to encourage the use of film camera in the operating theatre.

He became Chairman of the Medical Group of the Royal Photographic Society and his influence was behind the growth of departments of medical photography in many hospitals.

Pioneering was in his blood, and speaking of the period between 1920-1930 he says, "I do not suppose anybody operated in so many hospitals as I did in the period between 1929-30. I would just go anywhere for the sake of developing Plastic Surgery" Despite the dreadful lack of aftercare and the difficulty of operating in strange places, the value of Plastic Surgery slowly emerged. He contributed papers to professional medical journals and seized every opportunity of addressing Medical Societies in and outside London for propagating the art and science of Plastic Surgery.

The long list of hospitals to which he was consultant Plastic Surgeon in the inter-war years is an indication of the arduous and scattered nature of the work he did. Yet in spite of this he found time for golf, for flyfishing and later for painting and to all these pursuits he brought the same devotion, energy, enthusiasm and originality of thought and action.

In 1930, Gillies was appointed Honorary Consulting Surgeon to the Ministry of Pensions and also Consulting Plastic Surgeon to the Royal Air Force.

The appearance of his name among the new knights in the Birthday Honours List of June 1930 was followed by universal applause and whole-hearted approval. Delighted as he was by his new status, Gillies could not agree that he alone had earned it and took it not as a personal honour but as one shared by those who had been his compatriots in the pioneer work.

The establishment of Emergency Medical Service at the beginning of the second world war again gave Gillies opportunities for organisation. He accepted responsibility for setting and planning Plastic Surgery Units in different parts of the country. He himself undertook the direction of the unit at Rooksdown House, Basingstoke. His recommendation that McIndoe should succeed as civilian consultant in Plastic Surgery to the R.A.F. resulted in McIndoe being appointed to the Queen Victoria Hospital, East Grinstead, an advanced base hospital; Mowlem went to Hill End Hospital, St. Albans similarly designated, Kilner to Ministry of Pensions Plastic Unit at Rochampton. These units

gave long awaited facilities for the trainee of Plastic Surgery, both from home and abroad. It must have been a source of gratification to the "Father of Plastic Surgery" to have lived to see the establishment of Plastic Surgery Units not only at home but also abroad. After the 2nd World War, he continued working as Honorary Consultant to Ministry of Health at Rooksdown House, Baingstoke, and trained innumerable Plastic Surgeons from different parts of the world. Whenever opportunity arose, even at his advanced age, he took up lecture tours to countries of his former trainees, and wore himself out operating, lecturing till late hours, and these tours took him to all the continents of the world. It is of great interest for us to recollect that in the early years of Indian Plastic Surgery, when a handful of Indian Plastic Surgeons including the present speaker, were fighting for their survival and gasping for breath, his presence in India was like a manna from heavens. He toured extensively in India, visiting Bombay, Nagpur, Patna, Calcutta and Delhi and took great pains in talking to the medical administrators and medical hierarchy about the great need of Plastic Surgery in India. In Bombay and Patna talking to the medical authorities impressed them on the need for Plastic Surgery Units to deal with Burns and Leprosy cases which required much more attention than hitherto given.

The formation of the British Association of Plastic Surgeons with forty founder members to which Sir Harold was elected unanimously as its Founder President, crowned their work of thirty years from 1916-1946, and confirmed the rapid post-war expansion of the speciality in which he was still the pre-eminent 'maestro'.

Assurance of a permanent and honourable place for Plastic Surgery in Britain in the broad hierarchy of surgery came in 1948, from the President of the Royal College of Surgeons of England, Sir Alfred (Later Lord) Welb Johnson who had sponsored the Association formed two years earlier. He wrote the following foreword to the 1st issue of British Journal of Plastic Surgery : "The importance of Plastic Surgery can be hardly exaggerated for some of the conditions which the Plastic Surgeon aims to correct are amongst the most distressing and disabling to which human flesh is heir. The correction of major disfigurement enables the patient to mix freely with his fellowmen and to feel that life is worth living : What a change from the grim and gloomy outlook for the grossly disfigured, who sometimes feel that their only hope, if they cannot be relieved by Art, is to find, and even to seek, release by Death."

President Welb Johnson's rhetoric had a sombre relevance and a fitting tribute to the almost breath-taking reconstructions performed by Gillies and his colleagues which have today brought Plastic Surgery to its high pedestal.

In 1956 at Nagpur, during the Annual Conference of Association of Surgeons of India, we had the proud privilege of having the "Father of Modern Plastic Surgery" Sir Harold Gillies inaugurate the Plastic Surgery Section of the Association of Surgeons of India, a red letter day indeed, in the life of Plastic Surgery in India.

In 1958, he was invited by the Government of Bombay to inaugurate a Plastic Surgery unit at J.J. Hospital, Bombay. His love for India was unbounded and his concern for the development of Plastic Surgery in India was more than paternal and he took immense pains even at his advanced age to take a third arduous trip to India, visiting Bombay, Poona, Delhi and Patna operating, giving lecture demonstrations, giving lectures, and talking to authorities in India to encourage development of Plastic Surgery in India.

We in India are particularly beholding to him to help us put Plastic Surgery on its feet in our country.

An appraisal like this of his long and colourful life can hardly reflect the breath-making contributions he made for the cause of suffering humanity in general and for the cause of Plastic Surgery in particular. Besides pioneering Plastic Surgery in the modern age, it is not sufficiently realised that he was the first person to emphasise the importance of dental collaboration in Plastic Surgery, was instrumental in the development of endotracheal anaesthesia, he established certain principles for Plastic Surgery, which still form guidelines for trainees in Plastic Surgery throughout the world.

It is not sufficiently well-known that Gillies was the person to have interested Prof. P. B. Medawar to take up the experiments on homografts, and may be indirectly called the Grand Father of Transplantation surgery as well.

I shall now dwell briefly on the principles of Plastic Surgery which he used to expound and teach so brilliantly —

1. Observation is the basis of surgical diagnosis.
2. Diagnose before you treat.
3. Make a detailed plan before you start.

   No architect will ever dare build a house without a blueprint and his bricks are much cheaper and much more easily available than ours.

4. Make a record, line drawing, photograph, plaster model anything.
5. Restore what is normal to its normal position and retain it there.
6. Treat the primary defect first. In robbing Peter to pay Paul, do not produce secondary defects more obvious than the primary defect.
7. Make alternative plans ready and use the method most feasible and most economical in terms of time.
8. Losses must be interpreted in terms of its kind and must be replaced in kind.
9. Never throw anything till the reconstruction is complete.
10. Never let routine methods become your master and never do today what can honourably be put off till tomorrow, surgical haste means tissue waste. It is well to remember that 'time', although the plastic surgeon's most trenchant critic, is also his great ally.

These ten principles expounded by Gillies or the ten commandments of Gillies aptly summarise the philosophy of Gillies as a surgeon.

My random thoughts are inadequate to honour one of the greatest surgeons of our times. His work and influence transcended national frontiers. He enjoyed his visits to countries and he tried to identify with them. His visits to India came late in his life and even in the grey twilight of his life, his contributions to the growth of Plastic Surgery in India cannot be measured in words.

To the suffering men in his care, he was much more than gifted surgeon. He was a life enhancing human being whose personality transcended his professional compass, whose invigorating presence had its own healing prowess. He took his vocation seriously, himself-no ! self importance was always a challenge to the rebel in him who disdained preconceived ideas of how things should be done, who respected the law but was impatient of the 'establishment' and order and could not be counted to behave with propriety on any formal occasion.

His was full life restoring morale to countless men, women and children, while at the same time giving his services unremittingly at home and abroad to the speciality he had pioneered. He was indeed a man of many parts, the like of which we are not likely to see in our generation. He went to his rest, well-earned, still in harness, and he will be remembered in deepest gratitude by everybody doing Plastic Surgery and by the innumerable patients to whom he brought back the joy of life and happiness.

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