THE ROAD TO SUCCESS IS ALWAYS UNDER CONSTRUCTION: A RECONSTRUCTIVE SURGICAL PERSPECTIVE

An Inaugural Lecture delivered at the University of Ibadan

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by

ODUNAYO M. OLUWATOSIN
Professor of Surgery
Faculty of Clinical Sciences
University of Ibadan, Nigeria.

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The Vice-Chancellor, Deputy Vice-Chancellor (Administration), Deputy Vice-Chancellor (Academic), Registrar, Librarian, Provost of the College of Medicine, Dean of the Postgraduate School, Deans of other Faculties and of Students, Distinguished Ladies and Gentlemen.

The Road to Success

"The road to success is always under construction" is a quote that fascinates me. It is also the title of a 160-page best selling quotations book[1] which is a collection of short, powerful, humorous and inspirational quotations. I came across the quotation about 12 years ago when a colleague in the diaspora visited and delivered a lecture in the Department of Surgery. At that time the conventional analogue slide projection was still in vogue. The visitor forgot or inadvertently left a slide which contains the sentence that I have decided to make the title of this lecture. There are two key words in the title: "success" and "construction". An illustration of how we can come up with success can be seen in God's preparation of the great biblical General, Joshua, for the arduous task ahead of him. God asked him to meditate on the book of the law day and night – for in it he would make his way prosperous and have good success (Joshua 1:8)[2]. I can be used to model this title as I trace my success to God, the Omnipotent Creator of the universe who is still constructing my path to success.

This lecture is the fourth by a member of the Department of Surgery, since I came to our great University as a student in 1973. The first was delivered on behalf of the Faculty of Medicine by Professor E.O.Olurin on 24 January, 1975, the second on behalf of the Faculty of Clinical Sciences and Dentistry by Professor A.A.Olumide on 29 January, 1987, and the third by Professor O.G.Ajao on 20 February, 1992. My giving this lecture after Professor O.G.Ajao is not a coincidence. Professor Ajao is the person that God used to facilitate my appointment as Lecturer I in the Department of Surgery in 1992. I had passed this comment when incidentally I as Head of Surgery in 2005 presided over his send-off dinner. In view of the circumstances that prevailed at that time, Professor Ajao being the fighter that he was, insisted that I should be given a

temporary appointment as Lecturer I in the Department. Several years before my appointment, I had travailed as a Surgical Resident first at Ibadan for six years and then in Great Britain for almost five years. I therefore have the reputation of being one of the most chronic Residents. In my earlier years as a Senior Resident I was labeled unwise and foolish by some of my colleagues because as you will notice later, there was no Plastic Surgeon on ground at that time. My initial specialty training was therefore supervised between Professors Olurin and Adekunle at Ibadan and Professor Sowemimo, Dr Ademiluyi and Mr. Oyeneyin, FRCS at Lagos.

The second part of my Senior Residency commenced at the Shotley Bridge General Hospital at Consett, County Durham in England. I was admitted into the Certification Scheme of the Royal College of Surgeons of England in 1988 to train in Plastic and Reconstructive Surgery. Professor Oluwasanmi's kind remark about me was helpful in getting me a place in the scheme which took place first at Manor Hospital (which has now been merged with the George Elliot Hospital) Nuneaton, West Midland and at the Mersey Regional Burns and Plastic Surgery centre. My interest in the sub-specialty of Reconstructive Surgery was aroused while at the last Regional Center. While in the scheme, we undertook lectures and course series in different major cities and universities of the UK, like Oxford, Edinburgh, Glasgow, Bristol, Cambridge, Manchester, Birmingham and London. My dissertation for the certificate of the Royal College of Surgeons was on the use of arterialised venous flap in resurfacing and revascularisation of the finger. Mr. Vice Chancellor, the ***road to success is always under construction***. If I had returned to Nigeria one year or even two after training in the UK, as many often did prior to that time, my versatility in Reconstructive Surgery would have been much less.

The Road to Success in the Knowledge of Aetiopathogenesis of Facial Clefts

To illustrate my point on the success road, I will highlight the evolution of aetiopathogenesis of maxillofacial clefts from the latter half of the 19th century when Dursey in 1869 and His in

1874 published their *Classical theory*[3] to the current state of knowledge of the molecular basis of disease. At Shotley Bridge General Hospital, I learnt for the first time that the Classical Theory of His was not quite tenable in the explanation of all forms of clefts that occur in the head region. According to the theory, migration of the ectomesenchyme over and around the head is essential to the development of the facial processes namely frontonasal, maxillary and mandibular. Failures in the migratory pattern and path of this ectomesenchymal tissue are responsible for clefting in the face, lip, and palate. Therefore, when the medial nasal prominence of the frontonasal process fails to fuse with the maxillary process, a cleft in the upper lip results. The theory gave the simple explanation to the formation of different varieties of clefts of primary palate, inclusive of unilateral and bilateral cleft lip as well as oblique facial cleft. It is unable however to explain the rare variety of midline cleft of the upper lip.

On the other hand however, the Mesodermal Penetration Theory, introduced by Pohlmann in 1910 and popularized by Stark in 1954, postulates mesodermal migratory routes with closure between mesodermal masses being dependent on mesodermal reinforcement at key points along these routes[3]. According to this theory, clefts result from lack of reinforcement between the two epithelial layers and consequent epithelial breakdown and separation. Most researchers agree that the sequence explained by the Classical Theory, that is, fusion of the margins of the processes, is pertinent to closure of secondary palate, whereas closure of primary palate involves some form of mesodermal penetration.

From the biochemical point of view, Raposio, Bado and Verrina[4] studied the ultrastructure of orbicularis oris muscle in unilateral cleft lip patients and detected structural alterations such as variation in fiber size, increased number of mitochondria, and abnormal glycogen deposits in all specimens. The authors speculated that these changes are the result of increased oxidative metabolism and an undefined genetic inflammatory condition of the muscle. In a separate study, the same authors found increased concentration of the enzymes lactate dehydrogenase and creatine phosphokinase in the

amniotic fluid of pregnant women whose fetuses had cleft lip/palate[5]. They concluded that local metabolic impairment can be involved in the pathogenesis of cleft lip and palate. Does this mean therefore that the disease can be prevented by drug or genetic manipulation? Mr Vice Chancellor, ***the road to success is still under construction***.

A proper understanding of the embryological basis of clefts enables satisfactory reconstitution of the anatomical defects. For example, in cleft of the primary palate, the bony alveolar defect will benefit from bone grafting, the hypoplastic lower alar cartilage with its flare requires nasal correction, the abnormally attaching muscle should be apposed properly while the displaced philtral column must be derotated without achieving an abnormality of the length of the lip.

Management of patients with maxillofacial clefts provides a good platform for the interaction of several specialists which include the Specialist Nurse, Orthodontist, Maxillofacial, Paediatric, Plastic Surgeon, Otorhinolaryngologist, Speech Language Pathologist, and Audiologist. The first and second Pan African Congress on Cleft Lip and Palate were hosted by the Division of Plastic Surgery in collaboration with other Plastic and Maxillofacial Surgeons in different parts of the country, at the International Institute of Tropical Agriculture, Ibadan. The first congress gave birth to the Pan African and Nigerian Associations of Cleft Lip and Palate in February 2006. A lesson learnt at that congress was that the leader of the team assumes the position of first among equals rather than being the overall boss. This is a useful attitude to adopt towards the optimization of care in the health sector. One of the sponsors of the Congress, Smile Train of USA, has given grants towards the management of patients with cleft lip and palate in under-developed countries. The cleft care team at Ibadan has through this grant given smiles to both the patients with this congenital defect and their parents.

What is Plastic Surgery and what is the History of the Cradle of Plastic Surgery in Nigeria?

The second keyword in the title of today's lecture—"construction" gives root to the word "reconstruction" which is

the key aspect of my specialty, Plastic, Reconstructive, and Aesthetic Surgery. Plastic Surgeons very rarely use "plastics". I had once performed reconstructive surgery on a Caucasian who after the surgery asked me; Doctor, where's the plastic? Most of the "plastics" used by plastic surgeons are made of *silastic* in form of breast implants and tissue expanders; and *elastomers* used as explants for example in masking defects and deformities in the face. The "plastic" of Plastic Surgery is coined from the word "plastikos" – a Greek word meaning "repair" or "reconstruct". It refers to a specialty that is defined neither by anatomy, age or technique but that embraces change and indulges in not a little introspection[6]. Before dilating slightly on the components of Plastic Surgery, please permit me to delve into the history of the cradle of Plastic Surgery in Nigeria which is the Division of Plastic Surgery of the University of Ibadan. The Division has since the commencement of the Department of Surgery of the University College Hospital of the University College, Ibadan passed through peak and plateau periods. This had been largely due to the small number of plastic surgeons available to service the Division. Thankfully it has really not experienced any significant valleys because of the concerted efforts of the founding fathers of the Department of Surgery particularly the past Heads of Department.

As was the case with other Clinical Departments, Surgery was housed at the Adeoyo Hospital, Yemetu, Ibadan, while UCH was being built at its present permanent site. The late Professor Oritsejolomi Thomas, published on a few aspects of plastic surgery. One of his papers, "Possible Applications of Plastic Surgery in Nigeria" was published in the West African Medical Journal[7]. He, along with Professor B.M. Jolly, a lady ophthalmologist who was the foundation Head of Surgery and Dean of Medicine, and Professor W.W. Davey were among the staff of the Department in the 50s. Professor Oritsejolomi Thomas later moved to Lagos from where he was appointed Vice-Chancellor of the University of Ibadan.

When Michael N. Tempest arrived in Ibadan to become the first Plastic Surgeon to practise in Nigeria in 1962, hopes arose for the thousands of Nigerians either born with congenital anomalies or those that had sustained burns and other injuries

awaiting reconstruction. He wrote an article; "Drugs, Dressings, and Doctors: Some Basic Misconceptions in the Treatment of Burns"[8] in *Dokita*, a journal of University of Ibadan Medical Students' Association, in 1964. Although he did not stay for many years in Ibadan, he commenced the organization of the Plastic Surgery Division (Unit) and wrote a little book used by medical students in this institution in the sixties. Part of his thesis on Cancrum Oris was published in the British Journal of Plastic Surgery in 1966[9]. Misconceptions about his politics slowed his progress to the Consultant position in his home country. Thus, many younger contemporaries had fond memories of meeting him at interviews for the Consultant job around the United Kingdom. His contributions to Plastic surgery were however recognized through his ascension to the presidency of the British Association of Plastic Surgery in 1984.

The way Mr. Tempest responded to a medical referral shortly before returning to the UK in 1964 was one of the things that prompted his senior registrar, Joseph Olatunde Oluwasanmi to go abroad to specialize in Plastic Surgery. Mr. Oluwasanmi who obtained his FRCS in 1964 had been appointed senior registrar in the Department of Surgery in the same year. The Head of Surgery at that time was Ralph, C. Richards and the House Governor of UCH was Colonel Robertson. He applied for a Smith and Nephews Fellowship to be spent in some Plastic Surgery units in the UK in 1965. In his recommendation letter, the then Head of Surgery, Professor V Anoma Ngu wrote that the adjudicators of the fellowship would be doing Nigeria an honour if he were given this chance to study abroad. The reply came within a few weeks and Oluwasanmi shared the following year between the plastic surgery units at Broxburn, West Lothian, Glasgow, Scotland, at Newcastle upon Tyne in North East England; at Hammersmith Hospital and at East Grinstead.

The hard work of one year enabled Oluwasanmi to return to become the first indigenous Consultant Plastic and Maxillofacial Surgeon appointed by the University as a Lecturer I, in January 1967. During the civil war he voluntarily enlisted in 1968 as a Lieutenant Colonel to help in the management of war casualties at the Mid-Western front. It is interesting to note that the origin of the Faculty of Dentistry of the University of Ibadan was in

the Plastic Surgery unit where its founding fathers, J.O. Daramola and H.A. Ajagbe were Senior Registrars in the 70s. By the time Oluwasanmi retired voluntarily from the University as Head of Surgery in 1979, a Plastic Surgery unit consisting of three male adult beds in South East One Ward, three female adult beds in South West One Ward and two children's beds in South East Two Ward as well as a dental laboratory had been established. He unfortunately could not see his dream for a kidney transplant and a burn unit come through. It may be noted that he had studied some aspects of transplant surgery at Boston, Massachusetts under a WHO scholarship. While there, he developed his thesis on "Keloid", which earned him the Master of Surgery degree of the University of London.

Ferdinand Ofodile who obtained his Specialist Certificate, Diploma of the American Board of Plastic Surgery, in 1976 joined the Consultant Staff in 1977. He received his residency training at the Harlem Hospital Centre and at Columbia Presbyterian Hospital, New York, USA. He became a Senior Lecturer in 1979 when he took over as head of the unit and maintained the peak output of the division until when he left for the United States in 1982 first on a sabbatical leave but subsequently resigning to practise at Harlem, New York City. He later became Head of the Department of Plastic Surgery of the Medical School of the University of Colombia in New York City. Before Dr. Ofodile's departure Dr. Chika Ogbonna, who received his specialist plastic surgical training in Italy, had joined as a Senior Registrar. The nursing team worked excellently with the team for a long time, though it was only Nursing Sister Taiwo that had Plastic Nursing training. Hand surgery, which had been an integral part of the Division, was later supervised by Mr. Olusanya, FRCS, an orthopeadic surgeon.

After the exit of the key staff in Plastic Surgery, Professor Oluwasanmi was approached by the Chief Medical Director, Professor B.O. Osuntokun in 1989 to offer his service as a Visiting Consultant, to which he consented, so as to continue the training of medical students, residents and also manage patients. This continued till 1991 thus maintaining services in a unit devoid of permanent staff specialists. Afterwards Dr. L. I.

Okeke, Consultant Urologist under the then Head of Surgery, Professor O. G. Ajao supervised the Division. By the time of my arrival as the Consultant Plastic Surgeon in 1992, there were three additional beds in South East One for adult males and three in South West One for adult females. The movement of neurosurgical and cardiothoracic cases to the neurosciences buildings brought about this additional bed availability.

Highlight of Pattern of Presentation of Cases

More than any other surgical specialty, Plastic Surgery is concerned with quality of life[6]. It

- deals with congenital absence and deformity;
- deals with reconstruction after trauma and ablation of tumour;
- facilitates subtle and not too subtle change in contour, skin texture, size and appearance of adults who are not so happy with the effects of nature;
- contributes to the increased survival of patients with massive burns and the return to functional independence of victims of complex military and civilian trauma.

When I delivered the Faculty Lecture titled "Much more than Cosmesis" in 1995 on behalf of Department of Surgery, I highlighted the spectrum of cases seen at the University College Hospital, Ibadan[10]. Most of the cases were complications derived from mismanagement of trauma such as chronic ulcers, hypertrophic, dyschromic and keloidal scars and contractures. We also had late cases of cancer many of whom had been treated by our competitors from the field of alternative or more appropriately, complementary medicine. Mr. Vice Chancellor, many out of our unsuspecting populace fall prey to the manipulations of these uncertified practitioners.

"Mystery" continues to surround the treatment of a special form of abnormal scar called keloid. Keloids and hypertrophic scars are separate clinical and histochemical entities. Clinically, hypertrophic scars remain within the confines of the original scar border, whereas keloids invade adjacent normal dermis. Hypertrophic scars generally arise within four weeks; grow intensely for several months, and then regress. In contrast,

keloids may appear later, following the initial scar and then gradually proliferate indefinitely. Although both keloids and hypertrophic scars show increased fibroblast density, only keloids have increased fibroblast proliferation rates[11]. Collagen fibers in keloids are larger, thicker, and more wavy than those found in hypertrophic or normal scars and assume a random orientation, whereas those in hypertrophic scars orient parallel to the epidermal surface.

Part success has been noticed by the use of alternate applications like shea butter cream (ori omo), and boa constrictor fat (BCF) (ora ere). Professor Datubo-Brown, an old student of this Institution published his findings on the inhibitor effects of BCF oil on the growth kinetics of keloid and normal dermal fibroblasts in fibroblast cultures[12]. BCF significantly inhibited *in vitro* the growth of both keloid and normal dermal fibroblasts. Although the active ingredient(s) in this snake oil is not yet determined, it is postulated that fatty acids which are the main constituents of the oil may in part account for this effect. Mild or low-level keloid lesions can be treated with silicone gel or intralesional triamcinolone injection. The large lesions benefit from surgical excision combined with triamcinolone and low dose telecobalt radiation therapy. When the genetic and molecular biology of keloids are more fully elucidated, the "mystery" surrounding its treatment will disappear. This university is part of an international collaborative study designed to research into the genetic basis of keloids.

Lately, we have seen an upsurge of cases of road traffic accidents due mainly to reckless driving particularly by motorcycle (popularly known as okada) riders. It is estimated that 1.5 million people die annually of road traffic accidents and 85% of these in the developing world. About 10 million people are also crippled annually from road traffic accidents. This gulps about 1-3% of the annual national earning. The commonest cause of burn injury is dry heat mainly from abuse of petroleum products. This reflects a drastic change in the epidemiology of the disease. Peak of incidence now customarily falls within periods of fuel shortages and protracted Power Holding Corporation of Nigeria (PHCN) outages. Prevention of these incidences will prevent the unnecessary morbidity and mortality from these accidents.

Interdisciplinary management is now the vogue not only for burn injuries but also in the management of other traumas like open fractures of the leg. In interdisciplinary management, the experts communicate and collaborate in caring for the patient as opposed to what obtains in multidisciplinary management. In the same vein, primary management of trauma, that is, performance of surgery like excision of full thickness burn and skin grafting immediately after the first 36 hours of resuscitation, and internal or external fixation of tibia and fibula fractures plus flap reconstruction within the first five days after injury is now the goal[13]. Once the initial acute phase is missed, post operative morbidity increases[14]. The present organization of our healthcare however does not encourage this mode of management. Since many patients are not able to meet up with the "cash and carry" nature of our services they languish in the chronic stage of their illness and eventually incur greater expenses. It is my hope that the second and third phases of the National Health Insurance Scheme will come on board in the nearest future. These will encompass the organized and unorganized private sectors as additions to the present public sector involvement.

Reconstructive Surgery: The Common Factor

Mr. Vice Chancellor, as blood supply to the skin is now much better appreciated, the empiricism, tedious delay and poor results in reconstructive surgery have been pushed aside. Generally, the blood supply of the skin resides in three plexuses: sub-epidermal, mid-dermal and sub-dermal. These plexuses are in turn supplied by either/or a combination of three inputs which are direct cutaneous, musculo-cutaneous and septo-or fascio-cutaneous vessels[17]. Armed with anatomical information therefore, the trained surgeon can undertake flap transfer with an enhanced degree of safety and reliability. We cooperate with other specialists within the Faculty of Clinical Sciences in embarking on one form of reconstruction or the other:

(i) *With Otorhinolaryngologists.* Pharyngeal and oesophageal excisions create defects that may be reconstructed with pectoralis major musculocutaneous flaps[16,17] or jejunal free tissue transfer. The Division of

Plastic Surgery of the University of Ibadan popularised, in Nigeria, a single staged reconstruction of total ear loss using skin grafted fascia belonging to SMAS wrapped over costo-chondral cartilage. Reconstruction of an extensive total loss of the ala using nasolabial turnover flap and auricular composite graft was first described in the Division of Plastic Surgery of the University of Ibadan[18].

(ii) *With Ophthalmologists.* Various flap transfers and other repair procedures have been described for eyelid reconstruction[19]. In particular, we described the use of the combination of temporal muscle and glabellar flap in filling up the orbit after orbital exenteration[20].

(iii) *With Gynaecologists.* We have participated in gender reallocation procedures, reconstruction of a new vagina for cases with gynaetresia, and various repairs after excision of vulval and vaginal cancers[21].

(iv) *With Urological Surgeons.* Urethral repair for post traumatic and post-infective urethral strictures, repair of hypospadias[22], epispadias, bladder extrophy, and reconstruction of the penis[23].

(v) *With Neurosurgeons.* Scalp rotation flaps to cover exposed skull and open depressed fractures and in closure of meningo-myelocoeles and pressure ulcers[24]. We designed an algorithym for reconstruction of scalp and skull defects[25].

(vi) *With Orthopaedic Surgeons.* Repair of open fractures, chronic osteomyelitis, and several forms of bone transport[26].

(vii) *With Cardiothoracic Surgeons.* Reconstruction of chest wall defects[27] and obliteration of pleural dead space.

(viii) *With General Surgeons.* Breast reconstruction[28], closure after excision of soft tissue, repair of hernias etc. Knowledge of reconstruction encourages wide excision of tumour and therefore less chance of recurrence. Women who have had their breast removed as a result of breast cancer can have an immediate or delayed breast reconstruction.

Aesthetic or Cosmetic Surgery

In most parts of the world, less that 10% of the work of the Plastic Surgeon comes under Aesthetic or Cosmetic surgery. In our environment, it constitutes less than that percentage. Aesthetic Surgery is usually indicated; to reverse the signs of aging, to look more normal, to set free from obsession, and to correct some congenital abnormalities. Sir, the effects of aging on the skin can be summarized as follows[29,30]:

- decreased fibroblasts/collagen gives rise to loss of skin tone;
- decreased elastic fibers/elasticity causes wrinkling and with gravitational descent of the soft tissues lead to formation of skin folds along lines of skin adherence and in areas of muscular insertion;
- decreased fat/adipose connective tissue makes the extremities of the aged feel cold;
- decreased melanocyte activity brings about gray hair;
- increased amount of irregular pigments lead to "liver spots";
- atrophy of oil glands causes dry skin;
- atrophy of hair follicles lead to balding.

Obvious signs of aging appear as early as when one is in his 20s when the nasolabial folds start getting prominent. This is followed by upper eyelid redundancy, fine lateral orbital laugh lines at 30[31], glabellar and forehead furrows by 40 while the earlier features deepen. At 50, neck wrinkling appears as well as drooping of the nose. The correction of these signs of aging are not only requested by television stars, but also by those who develop them rather earlier in life than normal. I remember that my first face lift in a black was performed on a classmate of mine whose nasolabial prominence had developed to an embarrassing dimension. The Plastic Surgeon's aspersion to set free from obsession must not create an albatross out of his client. When in doubt, he must seek psychiatric opinion. A patient of mine once threatened my life in a desperate bid to procure his operation. Other aesthetic procedures are as listed below:

Procedure	Indication
Brow lift	Abnormal sagging frontal furrows
Blepharoplasty	Baggy eyelids
Face lift (meloplasty)	Excess facial folds particularly nasolabial
Chemical peel	Lip furrows
Dermabrasion	Facial scars e.g., from pimples
Carbon dioxide laser therapy	Shallow facial wrinkles
Rhinoplasty	Nasal hump, saddle nose
Otoplasty	Prominent ears
Neck lift	Neck wrinkles
Breast augmentation	Small breasts
Breast reduction	Large breasts
Breast reconstruction	Breast absence sometimes after removal of tumour
Abdominoplasty (tummy tuck)	Fatty apron
Liposuction	Upper thigh, buttocks, etc
Scalp flap with tissue expansion	Baldness

I believe I should not rap up this section on Aesthetic Surgery without talking about bleaching agents. The basic difference between the black complexion and the white complexion is the melanin content of the skin. Black people have more melanin than white people. Everybody produces more melanin under intense sunshine. While we refer to skin toning as the process of fading out our dark spots to match the lighter spots, thereby creating a brighter and more uniform complexion, bleaching refers to a more severe grade of change of colour. Generally, three toning/bleaching agents are in common use. These are hydroquinones, kojic acid and azelaic acid. Both hydroquinones and kojic acid are tyrosinase inhibitors that prevent conversion of tyrosine to melanin[32]. Hydroquinone concentrations less than 2% produces skin toning while above that level, it tends to be toxic to the skin and most skin problems associated with bleaching creams can be traced to *products containing more than 2% hydroquinone and steroids.*

The steroids are made for clinical uses and not as skin cream[33]. Long-term use of steroids produces irreversible adverse effects on the skin, including surface peeling.

Bleaching agents should be used with caution because they reduce the individual's protection afforded by melanin against the ultraviolet radiation of the sun. This may give rise to increased tendencies towards skin blemishes inclusive of skin cancer. Unfortunately some of the bathroom soaps we use contain bleaching agents but their composition is usually not stipulated on their packs. I hope that NAFDAC will enforce this as soon as possible. Other organic compounds usually used without prescription are retinoids (Retin-A, etc), α-hydroxy acids, salicylic acid, trichloroacetic acid, and phenol (carbolic acid)[36]. They come under the groups known as exfoliants and chemical peels which are normally used in attempts to reverse wrinkling due to aging and sun damage.

The last group of topical applications that I will speak about is sunscreens. These are of two varieties[35]—physical, like zinc oxide and titanium dioxide, and chemical, like salicylates, cinnamates, and para-aminobutyric acid (PABA). They are skin care products utilized by people who have less protection against the damaging effects of sunlight. These are people classified on the basis of reaction to sun exposure by Fitzpatrick[36] as skin types I to III. Albinos and people with xeroderma pigmentosum in our environment fall within these groups. Albinos have an autosomal recessive disorder characterized by absence of melanin. People with xeroderma pigmentosum also have an autosomal recessive condition due to defects in the DNA repair mechanism of ultraviolet radiation-induced damage[37]. Skin blemishes in these manifest early in life as persistent erythema, pigmentation, freckling, premature aging of skin, and multiple epithelial neoplasms[38].

The Road to Success Continues to be under Construction

Mr. Vice Chancellor, to illustrate that the road to the success of the Division continues to be under construction, the last decade of the 20th century witnessed major changes particularly in the area of specialist training. The first microvascular free tissue transfer in the Southern part of Nigeria was performed in 1993

on a lady in her 20s who had a modified radical mastectomy for a breast sarcoma and had immediate transverse rectus abdominis musculocutaneous free flap for breast reconstruction. Our first locally trained Plastic Surgeon is Group Captain Bolajoko. His success encouraged more Residents to take on Plastic Surgery as specialty of choice and in the following years, Drs. Olabanji, Abikoye (Mrs.), Ademola, Tahir, Adigun, Gana, Olawoye, Odeyinde, Ogunmodede (Miss) and Yunusa Kaltungo (Mrs), followed suit. Almost all of these passed their final specialty examinations at first sitting. Thus the Division has through the completion of the training of these residents and others who spent less than a year of their training with us, helped to open new Plastic Surgery units in other Universities specifically at Ilorin, Ife and Maiduguri, Shagamu, Lagos, Zaria, and Port Harcourt. Residents of other specialties like Ophthalmology, Otorhinolaryngology and Maxillofacial Surgery from the UCH and other teaching hospitals have also passed through the Division.

Mr Vice Chancellor, a most remarkable construction in the way to success was achieved when the first "Flap Transfer and Microsurgery" course possibly in the whole of Africa was hosted by the Department of Surgery on behalf of the University of Ibadan in April 1995. Residents and Consultants in Orthopaedic, ORL, Maxillofacial and General Surgery attended it. Contents of the course included instructions on the use of flaps in reconstructive surgery, with cadaveric dissections, and practices using operating microscopes. Similar courses have held yearly and later biennially in 1996, 1997, 1999, and 2001, 2003, 2005 and 2007. Instructors have come from different parts of the country and the UK and have included members of the Nigerian Association of Plastic and Reconstructive Surgeons, as well as Dental, ORL, Neurosurgical, Ophthalmic, and Anaesthetic Consultants.

In January 2001, our 12 bedded Burn unit commenced admission of cases, with minimum facilities which included a hoist and a custom fabricated bath with a heater. Although it is not one of the three regional centres funded initially by the federal government (thanks to politics), with its dedicated team, it surpasses the others and with its minimum facility has a

mortality LA50 figure that not only compares with but surpasses some of those in the developed world.

On the road to success we have constructed several improvisions; we make pressure garments, a modality for treatment of hypertrophic scars, from elastic garments sometimes procured from medical stores and sometimes from Aleshinloye market. Fenestrated foam disperses pressure and helps to prevent pressure ulceration in long-stay non-ambulant patients and those with para-and quadriplegia, in the absence of air fluidized beds[24]. When we popularized the use of honey in the treatment of wounds in 1987, management of wounds was revolutionalised. Osmolarity, acidity, the generation of hydrogen peroxide by peroxidases on dilution[39], and the presence of unidentified phytochemicals have been suggested to contribute to the antimicrobial potency of honey[40]. Geographical location, floral origin, and post-harvesting treatment conditions are considered important in potency considerations of honey.

Talking about success, this university has pioneered research in several aspects of life in this country. The many stories of the road to success cannot be exhaustively told. "Constructive" work has been carried out on the academic aspect of several professions. Our University pioneered the Master of Medicine (M. Med) programme in the 70s. The programme eventually gave the framework to the first part of the examination of what is now known as the Post Graduate Medical College of Nigeria. Being a product of this College, I can testify to the intensity of the postgraduate work required. My thesis was on Lip Parameters in Nigerian Children. It was an anthropometric study with a surgical interventional component. The project has since been published in three journals one of which is the top journal in Plastic Surgery in the world (*Plastic and Reconstructive Surgery - the Journal of the American Society of Plastic Surgeons*). In addition, the Fellowship of the West African College of Surgeons was born in our great institution, University of Ibadan, after the fashion of the Fellowship of the National Postgraduate Medical College. The late "King of Surgery" in Ibadan, Professor T. Solanke used to muse that the Royal College of Surgeons took a leaf from our Regional Postgraduate College by introducing post fellowship programmes which are

akin to our post Part I programmes in the various specialties of Surgery.

However, Mr. Vice Chancellor sir, I get rather disturbed when I read or hear statements like: "There is very little postgraduate work going on in the College." The truth is that there is a high concentration and great intensity of postgraduate work and research going on in the College, though mostly within the ambits of its laboratory facilities, i.e. the University College Hospital. In fact, the excellence of the College of Medicine is a major contribution to the excellence now known of the University of Ibadan.

Any Future Promise?

World wide, the plastic surgery community has brought to surgery the concepts of immunology, the realities of transplantation and the clinical applications of tissue engineering. In this 21st century however, the plastic in our specialty could be applicable to another "plasticity" that refers to the differential potential of stem cells. This is the super highway to regeneration and a most fascinating biological concept[6].

On the local scene, the "town" must believe in and embrace what the "gown" has to offer. The press must play a major role in this. It must publicize what the experts have to deliver, particularly in the area of prevention of accidents in general. A lopsided publicity of "complementary" health care in preference to or at the expense of well informed health care delivery is not doing us any good.

I look forward to the nearest future when all professional curricula in our Faculty namely Medical, Nursing and Physiotherapy will be concluded. We are already on course on the issue of continuing professional education. Our e-learning facility awaits the university equipment vote of 2006 and 2007. The emphasis in our fast moving world is on acquisition of knowledge. Our great citadel of learning must not relent on its being the flagship in the delivery of this to our erring society. We have listened to several tales of woe depicting the greed of rulers and the ruled of our nation. Some of the crimes perpetuated have being traced to the upcoming generation some of whom are based in some of our ivory towers. I dare reiterate

at this juncture that success resides with hard work and whatever we sow into the future, we will reap. Let us all place our hands on deck in the process of constructing a virile and long lasting highway to success.

In conclusion, ladies and gentlemen, I have depicted the unifying possibilities afforded by reconstruction in the diversity of the field of Surgery. The armamentarium of procedures is locally available and reconstructive surgical personnel are now well spread round the country. Our great institution has played a key role in taking reconstruction through the pathway of success. A lot more however awaits accomplishment. Certainly the road to success will continue to thrive through the process of construction.

Acknowledgement

I thank my teachers, past and present Heads of Department of Surgery, and my colleagues in the Department of Surgery. They have in several ways enhanced my journey toward success. Professor Ajayi triggered off my ventures into Plastic Surgery; Professors Olurin and Adekunle provided the initial supervision along with Professors Sowemimo, Dr. Ademiluyi and Mr Oyeneyin, FRCS. Professors Solanke, Oluwasanmi and Adeloye, were instruments God used to encourage me through the journey and propel me up. Although they have all retired, I know that they are not tired. I appreciate Miss Kathy Chrystal, Jimmy James and Brook Berry who nurtured me at Shotley Bridge; my senior colleagues at Nuneaton, Richard Matthews and Tony Groves. I remember late Len Holbrook and others at Merseyside: Messers Gipson, Stilwell, Berry, Green, Fleming and McGeorge. Professor Ajao, has been wonderful. He continues to teach me the lesson of accommodating others no matter how handicapped they are. Professors Nkposong and Lawani, have left indelible marks.

I must mention Professor Adebo who provided the mentorship as I followed in his footsteps: as Chairman of Medical and Dental Consultants Association, UCH branch, as Head of Department, and as Dean; and Dr. SA Ademola, my colleague in the Division of Plastic and Reconstructive Surgery—I can say that hitherto has the Lord helped us in

building up the Division. I appreciate the prayer support of Pastor, Rev (Dr) S.I. Omokhodion, and the household of Christ Chapel, UCH. I thank the Directors of the Institute of Child Health and Ibarapa Project and Heads of the Departments in the Faculty of Clinical Sciences, as well as the teaching and non-teaching staff and students of the Faculty for supporting my Deanship so far. May the Lord reward you all.

I express my appreciation to my late father, Pa Clement Afolabi Fasika, and my mother Madam Grace Bolanle Fasika (nee Mimiko) for giving me the unique opportunity to undergo tertiary education. I also appreciate my mother-in-law, Mrs. E.O. Dare (nee Oyadiran). My siblings were supportive. They are Mrs Mojisola Okeowo, Mr. Olayinka Fasika, Mrs Mowaninuola Akinsete, Mrs Abiola Olatunde and Mr Olanrewaju Fasika. I thank God for keeping us through the years. I thank my "girl", my loving wife, and prayer partner, Abimbola Oyeninhun Oluwatosin (nee Dare). She has supported me through the years: inspiring, counselling and providing the conducive home environment towards the construction of the road to success. Our three 'friends'; Oluwabunmi, Oluwafisayomi, and Oluwapelumi, have enriched our lives. (We are certain that as you continue in the way of your upbringing you will flourish like the palm tree and grow like a cedar in Lebanon). Finally, to the Most High God, the Beginning and the End, the Awesome Creator, to whom belongs all wisdom, and who teaches us to "construct", be all glory and honour and majesty! I thank you all for listening.

Notes

1. Wall, L. and Russell, K. *The road to success is always under construction.* Seattle USA, Walrus production. 1992
2. Joshua 1: 8. "This book of the law shall not depart out of your mouth, but you shall meditate on it day and night, that you may be careful to do according to all that is written in it; for then you shall make your way prosperous, and then you shall have good success". (RSV)
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oesophageal stenosis using a pectoralis major musculocutaneous pedicled flap. *Nigerian Journal of Surgery.* 1998; 5: 13-15.
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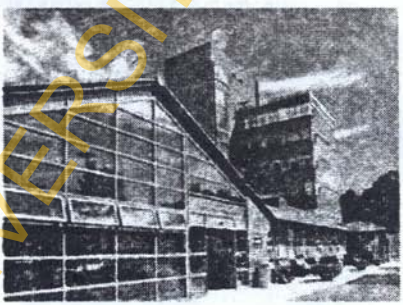
APPENDIX

The Road to Success is always under Construction:

a reconstructive surgical perspective.

Odunayo M Oluwatosin
Professor of Surgery
Faculty of Clinical Sciences
University of Ibadan, Nigeria.

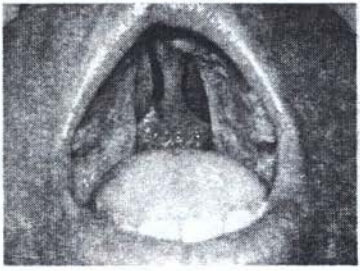
Shotley Bridge General Hospital, Consett, County Durham



Mersey Regional Burns and Plastic Surgery centre at Whiston Hospital

Microsurgery course, 1989, at Ethicon Laboratory, Edinburgh

Cleft of secondary palate due to lack of fusion of facial processes

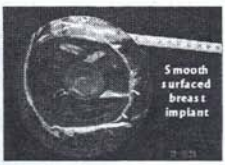


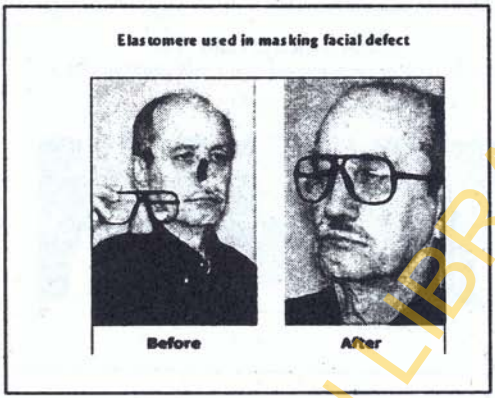
Bilateral Cleft of Upper Lip
Due to lack of penetration of mesodermal masses

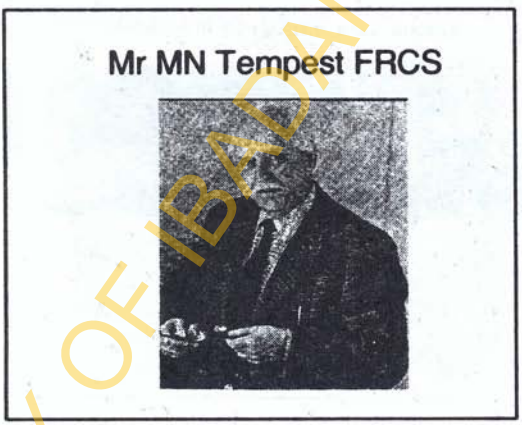
Preoperative

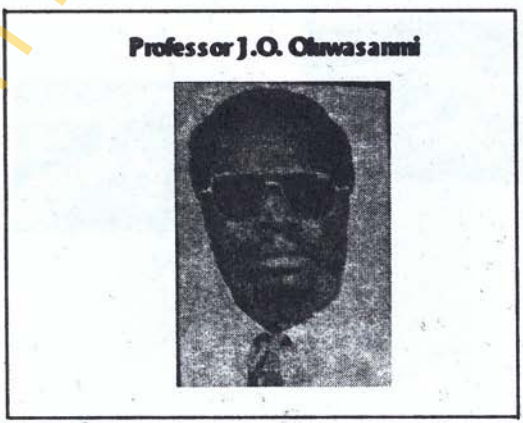
Postoperative

Bilateral Cleft of Upper Lip in an Adult









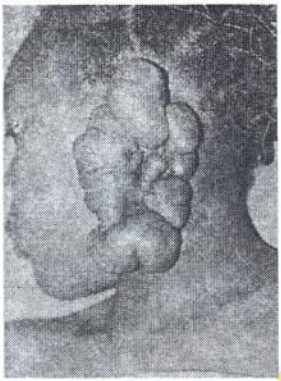

Prof R C Richards


Prof Anama Ngu

Plastic Surgery

- Reconstruction of congenital absence and deformity
- Reconstruction after trauma and ablation of tumour plus hand surgery
- Skin and Aesthetic surgery
- Burn injury

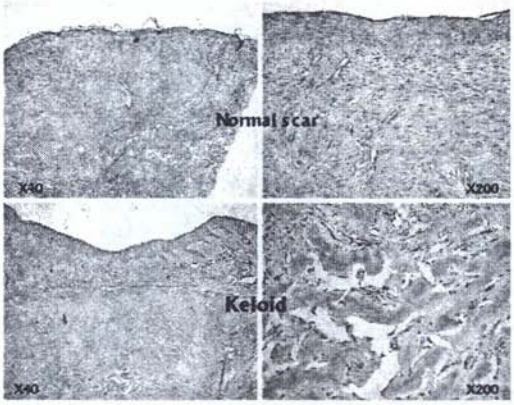
Hypertrophic scars



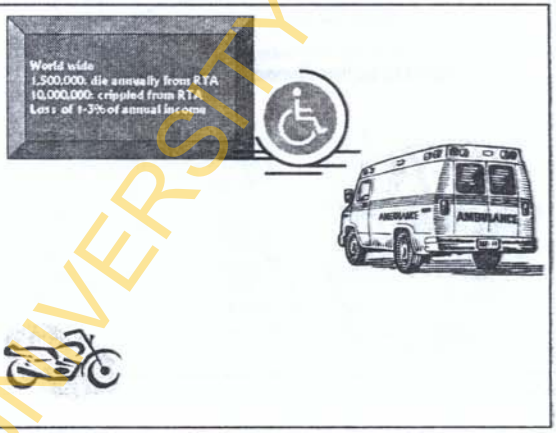
Left ear keloid

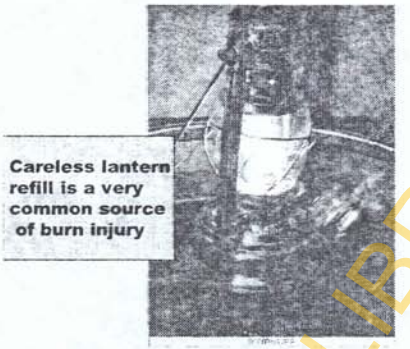
Abnormal scars with contractures

	Hypertrophic scar	Keloid
Borders	Growth within boundary	Outgrows its boundaries
Natural history	Starts soon after injury. Subsides after 1 year	Initial latent period, rarely subsides
Genetics	Less familial	Significant familial predilection
Aetiology	Tension and timing of closur	Possibly autoimmune
Age	Any age but mostly under 20	Most common in 10-30 year olds



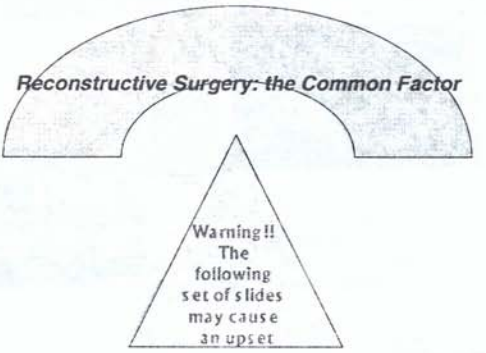
Large keloids require triple therapy of excision, radiotherapy and triamcinolone

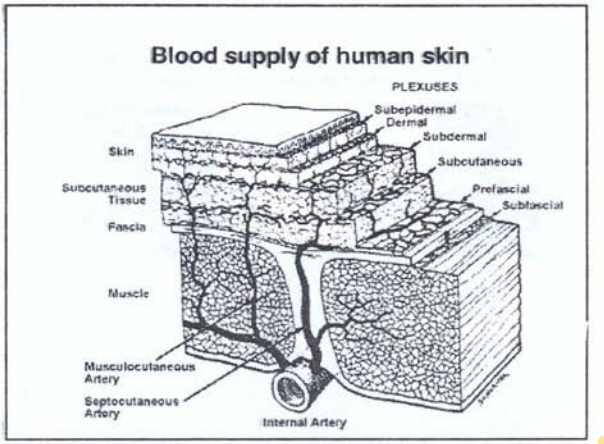


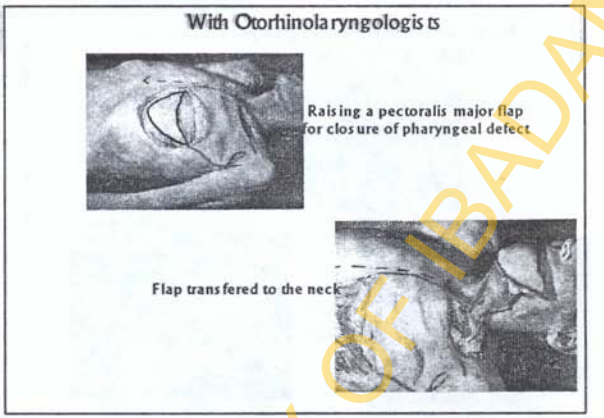


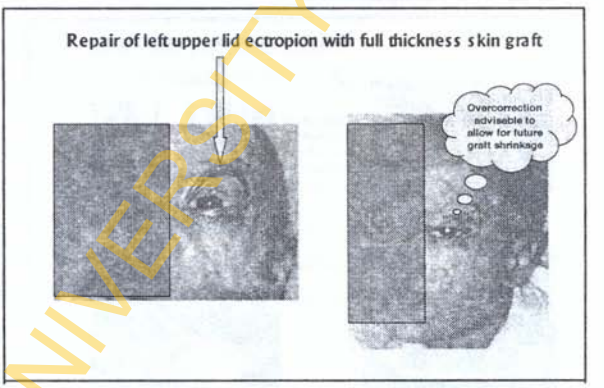
Some current concepts in management of trauma

- Interdisciplinary management
- Primary management (operative surgery immediately after resuscitation)
- Rehabilitation as soon as possible

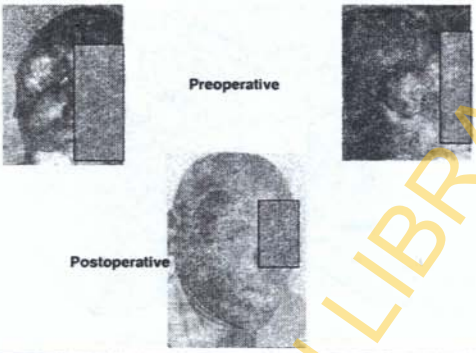




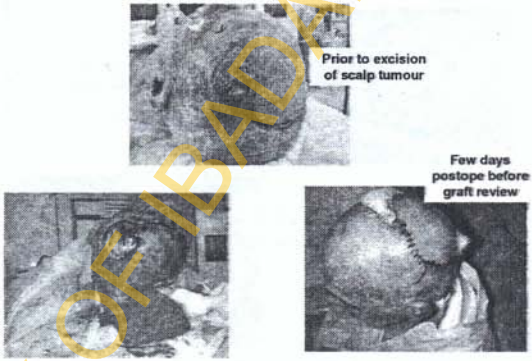




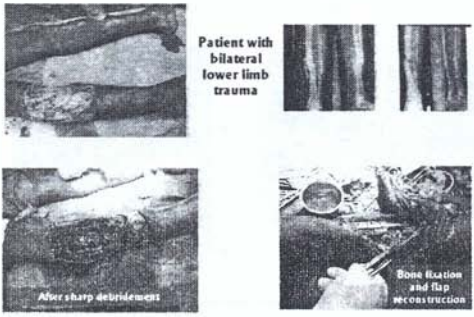
Ibadan's combination of temporal muscle and glabellar flap to fill up the orbit after orbital exenteration



Scalp rotation flap to cover skull bone exposure

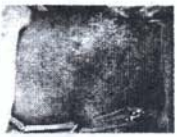


Joindy with Orthopaedic Surgeon in trauma management



With Cardiothoracic Surgeons, reconstruction of chest wall defects

Chest wall tumour



Elevation of vertical rectus abdominis musculocutaneous flap

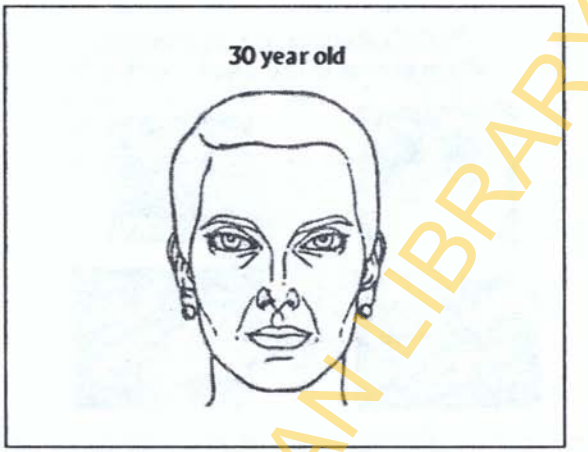
With General Surgeons, closure after excision of soft tissue tumour

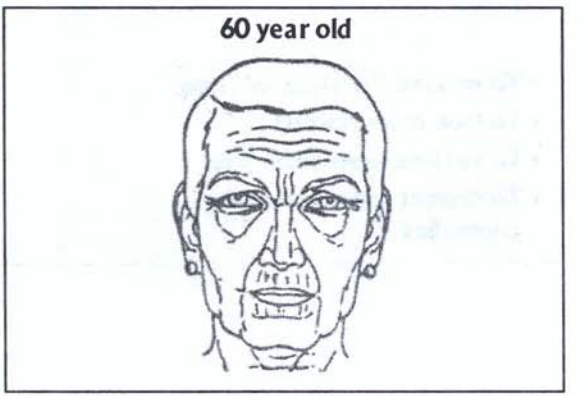
Defect created by excision of breast cancer

Latissimus dorsi flap from the back closes the defect

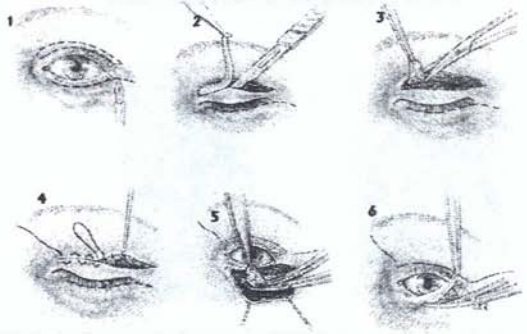
Indications for aesthetic surgery

- To reverse the signs of aging
- To look more normal
- To set free from obsession
- To correct some congenital anomalies





Blepharoplasty



Face and Neck Lift

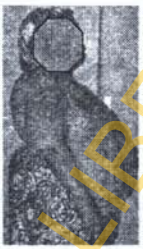
Incision for face lift to hide the scar

Breast augmentation

Preope

Postope

Large breasts for breast reduction



Abdominoplasty

Preoperative

Postoperative

Tissue expansion prior to excision of baldness

Fitzpatrick's classification of skin type

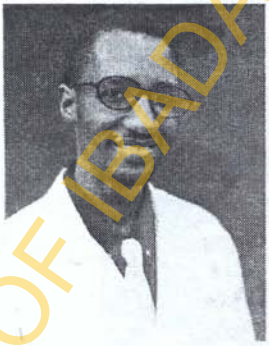
Skin Type	Color	Reaction to First Summer Exposure
I	White	Always burn, never tan
II	White	Usually burn, tan with difficulty
III	White	Sometimes mild burn, tan average
IV	Moderate brown	Rarely burn, tan with ease
V	Dark brown*	Very rarely burn, tan very easily
VI	Black	Do not burn, tan very easily

* Asian Indian, Oriental, Hispanic, or light African descent, for example

Group Captain Bolajoko
Nigeria Air force Hospital, Makurdi

Dr. KO. Olabanji
Consultant Plastic Surgeon, OAUTH, Ile Ife

Dr. S A Ademola
Consultant Plastic Surgeon, UCH, Ibadan



Dr. C. Tahir, Consultant Plastic Surgeon, UMTH, Maiduguri

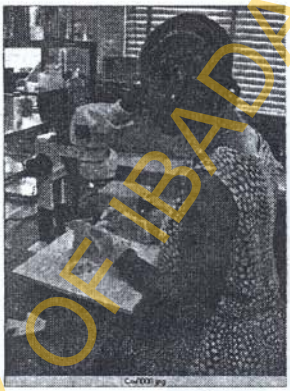
Dr F O Abikoye
Consultant Plastic Surgeon,
National Orthopaedic Hospital, Igbobi Lagos.

Dr Adigun
Consultant Plastic Surgeon,
University of Ilorin Teaching Hospital.

Dr Gana
formerly Consultant Plastic Surgeon

Dr O Olawoye
Consultant Plastic Surgeon,
Ogun State University Teaching Hospital.

Dr Odeyinde,
East Grinstead, UK



Dr Bimbo Ogunmodede
Consultant Plastic Surgeon,
Lagos State University Teaching Hospital

Dr Yunusa Kaltungo
Consultant Plastic Surgeon,
Federal Medical Centre, Gombe

Flap Transfer and Microsurgery course, 1997

Flap Transfer and Microsurgery course, 2007

Study	Number studied	Male: female ratio	Mean TBSA	Mortality	LA50 value
Tokyo, Japan (1983-2003)	6401 (25% above 65 yrs)	63:37	18.8%	15.4%	53
Birmingham (1969-1998)					54 (for 30 yr old) 59 (for 15 yr old)
Kalayi, (Zaria) 1996	84 children			27.4%	
Olabanji, (Ile-Ife) 2003	474	1.75:1	25.4	21.8%	
Adigun, (Ibadan) 2004	164	2:1	36	36%	68%
Sowemimo, (Lagos)					63%