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Prioritization in Management of Female Uro-Genital Fistulas (UGFs): How and Why?

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Abstract

Purpose: To provide emergent care to women with Uro-Genital Fistulas (UGFs) to minimize immediate and late fistula related disabilities and morbidities.

Aims and Objective: Hospitalization of UGFs affected women on priority for early rehabilitation.

Material and Methods: Since 1991 to 2017, the author had been operating such affected women and had laid down certain policy for timely, smooth and un-interrupted hospitalization, management less than one roof to provide vigilant and comprehensive care, thus minimizing fistula related disabilities and morbidities. This was based upon observations made out at different times from history and interrogation of patients, behavior of family members with hospitalized patients and the respect and status of patient in family after discharge.

Observations: The observations were noted in confidence without disclosure among family members. Strict adherence and implementation of certain guidelines based upon these observations had improved the final outcome of management as a result of hospitalization and fistula repair on priority.

Keywords: Prioritization; Rehabilitation; Uro-Genital Fistulas (UGFs); Female Uro-Genital fistulas (FUGFs); Hospitalization

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Introduction

In the past era, Uro-Genital Fistulas (UGFs), namely the vesico-vaginal fistulas, urethro-vaginal fistulas, uretero-vaginal fistulas, uretero-uterine fistulas, uretero-cervical fistulas, uretero-tubal fistulas, utero-vesical fistulas alone or in combinations with or without the associated recto-vaginal fistulas were quite common in occurrence due to multi-factorial etiologies. In the under-developed and developing countries, obstructed labor has been the primary reason, whereas in fully developed and well to do countries, the radical pelvic surgeries has been the main cause of such Female Uro-Genital Fistulas (FUGFs). The adverse impacts of such UGFs on the affected women ranges from minor to the most devastating one depending upon the literacy and empowerment of women; health care delivery system in the affected region; the economic status of country; availability of rehabilitation facilities for the disabled population; and, insurance and financial help for treatment of ongoing chronic disabilities after successful management of fistula disease. Perfect readjustment and re-integration of successfully repaired women with UGFs is not easy [1]. The condition of affected women in under-developed countries is not less than slaves and sex-toys, therefore, the authors have planned to expose this social problem, wherein emphasis has been laid down to minimize atrocities on such affected group of women by considering them on priority for: maintenance of absolute privacy; counseling; examination; investigations; pre-anesthetic check-ups; hospitalization; examination under anesthesia; and, sympathetically considering them for serial number one in the operation list without leaving any scope of cancellation of their repair for want of time. Delay in diagnosis and frequent postponement of surgical repair will contribute towards worsening of their pre-existing psychological, social, marital, familial and financial issues. The extremes of inhuman behavior are when they are divorced, deserted or pushed in flesh trading.

Materials and Methods

All the affected women who underwent repair of Uro-Genital Fistulas (UGFs), since 1991 to 2017, were taken in to confidence during their visits and follow-ups in the Hypospadias and Vesico-Vaginal Fistulas (VVFs) Clinic of the Department of Burns and Plastic Surgery at Postgraduate Institute of Medical Sciences (PGIMS), Rohtak-124001, Haryana, India, and their fistula related issues were inquired while maintaining full privacy and secrecy.

1. The issue of hospitalization (must be considered on priority over other elective cases).

2. The issue of special investigations (must be got fixed as semi-emergency to cut short pre-operative waiting period).

3. The issue of referrals (not to make them shuttlecock among different departments, rather all different specialists are called for indoor/bed-side consultations and advices in the department of Obstetrics and Gynecology).

4. The issue of pre-anesthesia check-ups (taking in to consideration the fistula related and other un-related co-morbidities).

5. The issue of pre-operative counseling and consent (with patient, partner, parents and relatives with special reference to hysterectomy).

6. The issue of pre-operative preparations (bowel, urinary tract and perineum).

7. The issue of deciding surgical approach and technique (all team members to finalize the best suited route and technique for the case under consideration depending upon its site, size, simplicity or complexity and the existing morbidities and disabilities).

8. The issue of anesthesia (depending upon the route of approach, technique of repair, positioning on operation table and expected time for completion of repair).

9. The issue of water-proofing flaps (all repaired fistulas must be re-enforced with one or more water-proofing flap).

10. The issue of post-operative care (vigilant post-operative care and attention to all complaints of patient without undue delay to prevent disruption of repair).

11. The issue of post-operative care station (bed of patient must be nearest to nursing station to examine the patient frequently).

12. The issue of pre and post-operative ward-rounds (such patients are seen in the beginning of ward-rounds collectively by all fistula team members).

13. The issue of medications and hydrations including nutrition (no delay is to be done).

14. The issue of discharge (only when fully satisfied despite successful or failed repair).

15. The issue of instructions when discharged (especially abstinence from sexual activities till 3 months of healing).

16. The issue of physical strengthening (perineal exercises for pelvic floor strengthening to be continued for 6 months).

17. The issue of psychological stabilization (psychotherapy and relevant medication under supervision).

18. The issue of pregnancy (may be allowed after 6 months of repair but vaginal delivery is not permitted for fear of disruption of repair and recurrence of urinary fistula).

19. The issue of sexual activities (could be painful and difficult during first 3 months).

20. The issue of working place (can be permitted to go to working place without any fear of urinary leakage or incontinence).

21. The issue of attending social and cultural activities (permitted to attend without any kind of risk).

22. The issue of adoption (permitted where hysterectomy has been done).

23. The issue of financial help (from NGOs and the state and or central government from disability or other related funds).

24. The issue of Living Homes (for poor population under the supervision of government machineries).

25. The issue of disabilities (priorities are given wherever possible).

26. The issue of insurance (must have insurance cover by the government).

27. The issue of bill clearance (amount spent upon subsequent visits to hospital for investigations and treatment for long-term morbidities and disabilities on account of fistula disease).

28. The issue of health care delivery (government must ensure medical facilities to all expectant mothers of all regions and rural or urban population).

29. The issue of obstetrician and gynecologist (all medical centers must have easy availability of Obstetrician and Gynecologist to handle the cases in time).

30. The issue of establishment of fistula clinics or fistula hospitals/fistula units (government must think of establishment of fistula clinics and fistula hospital and start of fistula units to provide expertise care and for the purpose of training and research of interested health care personals).

31. The issue of employments (some consideration must be given to such deserted women to earn their livelihood).

32. The issue of skill development (skill centers must render free skill trainings to FUGFs patients to enable them to earn their livelihood).

33. The issue of Ante-Natal Care (ANC) (ante-natal care is provided to all pregnant women at their door-steps to detect high risk women for early hospitalization).

34. The issue of transport (free transport facilities are made available round the clock).

35. The issue of free treatment in longer-term (facilities for free treatment during follow-ups for residual fistula related and other morbidities).

36. The issue of union of family (the parents and relatives must come forward to facilitate union of a broken family).

37. The issue of literacy (free education is provided by the government).

38. The issue of atrocities and fear-free life (protection be provided by local administration).

39. The issue of participation in local, state or national events (encouraged by family and the government).

40. The issue of continence (must be looked in to details by treating team).

41. The issue of pelvic floor strengthening (educates and train during follow-up visits).

42. The issue of research (establishment of research centers will improve outcome of management by inventing new minimal invasive techniques for better repairs to facilitate quick and complete rehabilitation).

43. The issue of fertility (hospital must provide free assistance in this matter).

44. The issue of isolation, depression or suicide (family and treating team must be vigilant regarding early detection of onset of signs and symptoms of such illnesses).

45. The issue of hysterectomy (detailed counseling must be done well in advance to enable the patient to take decision in this regard).

46. The issue of diversions (the matter of urinary and or faecal diversion must be discussed in detail beforehand).

47. The issue of HIV and STDs (get adequate and complete treatment without social discrimination).

48. The issue of amenorrhea and menstrual irregularities (treatment from obstetrics and gynecology department or the endocrinologist).

49. The issue of negativism (removes it and infuses positivism).

50. The issue of loss of desire to survive (give positive therapy).

51. The issue of losing hope for betterment (gives positive therapy and show other treated and happily rehabilitated fistula patients with their children and other family members).

52. The issue of living together with partner and siblings (family members must put efforts in this direction where separation or divorce has happened).

53. The issue of providing training (hospital and government must get few doctors trained in this field).

54. The issue of awareness, media and newspaper (to prevent recurrence of UGFs and timely report for quick detection, treatment, fast recovery and early rehabilitation).

55. The issue of forming organizations at national and international level (institution and government to look in to this matter).

56. The issue of recommendations to state and central governments (institution can make certain recommendations to state or central government to think positive towards such affected group of women).

57. The issue of establishment of different section in health department of the government (in the Ministry of Health and Family Welfare (MOH & FW), wherein somebody must be assigned duties and responsibilities to pay special attention to such affected women).

58. The issue of involvement of NGOs (the government must involve and grant aid to reputed NGOs to look after such women by providing staff and funds).

Note: All issues are tackled with the sole motto of making improvements in the results of repair, psycho-social problems and long-term disabilities as a result of fastening their rehabilitation and to encourage them to enter in main stream of society.

Observations

Various observations were made depending upon history and interrogation of affected women at the time of (i) presentation in the out-patient department before surgical repair of fistula, (ii) hospitalization during investigations, operation and post-operative care, (iii) hospital visits by family members, (iv) moral, psychological and financial support rendered from different corners, (v) immediate post-operative periods, (vi) follow-ups after discharge, (vii) stay at home with family, (viii) need of psychological and financial support, (ix) desire of sexual activities, (x) considering and planning for pregnancy, (xi) permission to participate in different social and cultural activities of family and relatives, (xii) desire for literacy and higher education, (xiii) expressing willingness to work outside, (xiv) discussing empowerment issues, (xv) frequent hospital visits for subsequent treatment of long-term residual morbidities left even after successful repair of fistula, (xvi) better diet for nutrition and medication as per requirements, (xvii) resting at home after discharge before gaining full strength and recovery, (xviii) awareness of husband and family members about hysterectomy and amenorrhea, (xix) subsequent miscarriages, (xx) issue of loss of fidelity on the part of husband, (xxi) saying no to second marriage, (xxii) denying husband to have friendship with other woman.

Discussion

The field of Female Uro-Genital Fistulas (FUGFs) falls in the combined domain of pediatric surgery, Pediatric Urology, Urology, Obstetrics and Gynecology, General surgery and the plastic and reconstructive surgery. The departments of obstetrics and gynecology and the pediatric surgery are quite busy due to heavy work load of their routine procedures. These patients report to any of the above-mentioned departments, but due to their busy schedule, such patients with leaking urine are not entertained so easily, therefore, they are made shuttlecocks among these departments referring them from here and there without giving any importance to their disabilities and associated morbidities despite the facts that all these departments are capable to manage them effectively and efficiently. Thus, these affected patients are deprived of receiving timely medical care in terms of examination, counseling, investigations and hospitalization on priority. The extremes of such carelessness become obvious when such affected women are left unattended untreated and are forced to stay with urinary fistula, onset of sepsis and subsequently to have a miserable death.

With advancement in the knowledge of different flaps, the plastic and reconstructive Surgeons have proved most helpful to departments of pediatric surgery, urology and the obstetrics and gynecology in the matters pertaining to the complete management of different types of Female Uro-Genital Fistulas (FUGFs) in single stage with promising results.

The authors had the concept of constituting a fistula team consisting of (i) senior most faculty of obstetrics and gynecology

department, (ii) senior most faculty of plastic surgery department, (iii) senior most urologist available, (iv) senior most general surgeon, (v) ICU-trained Anesthesiologist, (vi) senior most operation theatre master and the (vii) senior most staff-nurse. The in-charge of ICU is informed for providing ICU facilities. The team also had physiotherapists to help patients in fast recovery and ambulation. Microbiology department assists in culture and sensitivities of urine and other exudates or transudates for choosing appropriate antibiotics. The psychotherapist had great role to play in long-term, both for successful and failed repairs.

The patients are examined in good light by senior most faculty member on priority and in privacy in out-patient department of Obstetrics and Gynecology, and the findings were recorded and discussed with Plastic Surgeon, Urologist and General Surgeon to make comprehensive plan for surgical route and technique to be adopted for the case under consideration.

The patients are admitted in the department of obstetrics and gynecology for maintaining privacy, pre-operative investigations, pre-operative preparation, pre-anesthetic check-up and pre-operative enhancement of nutrition. The fistula team will have discussion to finalize the route and technique of closure after having gone through all investigations. Doubtful radiological investigations are discussed with senior radiologist to help in tracing the communication between urinary and genital tracts. The best possible water-proofing flap was finalized by plastic surgeon based upon the route and technique planned.

After adequate preparation and fitness, the patient is put on operation list at serial number one and another alternate operation list was also prepared in case the fistula patient is postponed due to detection of some overlooked significant problem or deranged investigation, so that the operation theatre does not remain unutilized.

The anesthesiologist is informed about the position of patient to be maintained on operation table and the approximate time required for proposed surgery, and accordingly, the anesthesiologist chooses the type of anesthesia.

Keeping all in mind and to facilitate early repair of fistulas, the affected women were admitted under the direct supervision of the senior most obstetrician and gynecologist, and the plastic surgeons and other associate members of fistula team would visit patient in the department of obstetrics and gynecology to ensure complete privacy of the women and to provide all consultations and services under one roof.

Where the abdominal route was planned, the laparotomy was done by the senior faculty member either of department of obstetrics and gynecology or the General Surgeon where intestinal adhesions are expected. The Gynecologist performs formal exploration of pelvic cavity and carries out gynecological procedures like hysterectomy, oophorectomy or salpingectomy, if needed. Now the Plastic surgeon enters the surgical field for dissection of complex fistulas, separates urinary tract from genital tract, i.e., bladder from uterus or cervix or the vagina, and also identifies the ureter to trace it down to the site of communication between the ureter and vagina, ureter and cervix, ureter and uterus, ureter and fallopian tube, and ureter with the urinoma. Small, low-lying and simple fistulas can be managed trans-vaginally. Large, high-placed and complex fistulas will require abdominal or a combined abdomino-vaginal approach [2]. Small fistula can be approached through the urinary bladder and the adjacently lying ureteric openings are thus safeguarded. The intestinal problems are takes care by general surgeon. In difficult cases, even the urologist is called upon to help tracing urinary tract and to carry out appropriate procedure to safeguard the integrity and safety of upper and lower urinary tract.

In vaginal route, the Plastic surgeon dissects the fistula and carries out a multi-layered closure. A water-proofing flap is designed either from the vaginal wall or the Martius flap from the labia majora. All the fistulas are circum-infiltrated with 1:200,000 adrenaline-normal saline solutions, circum-dissected, circum-excised and closed in layers at right angle to each other, i.e., bladder closed vertically and the vaginal closed transversally. It is ensured that all closed fistulas are further re-enforced by one or two water-proofing flaps of axial pattern. A large number of water-proofing flaps have been described to re-strengthen the repaired fistulas like the: Omental flap, peritoneal flap, detrusor flap, peri-vesical fat flap, broad ligament flap, fallopian tube flap, rectus abdominis flap, gracilis muscle flap, vaginal wall flap and the Martius flap [3]. Such re-enforcing flaps are harvested by the plastic surgeon. Wherever necessary, the bladder, peritoneal and pelvic cavity or the transplanted ureters (neo-ureterostomy) are drained. The captain of fistula team remains the plastic surgeon who is trained in general surgery and plastic surgery, and is therefore competent enough to handle the intestine, urinary tract and harvesting of different water-proofing flaps.

After repair and re-enforcement of the fistulas, the women are shifted in the Intensive Care Unit (ICU), if required, depending upon extent of surgical procedure and co-existing morbidities, otherwise women are shifted in to post-operative section of High Dependency Unit (HDU) of the department of obstetrics and gynecology. A vigilant post-operative care is rendered by trained staff nurses round the clock. Each and all minor complaints are attended by the nursing staff without any delay; else the repair would be disrupted. Special emphasis is paid on the quantity and quality of urinary output. Patients are kept marginally over hydrated to ensure free flow of clear urine at the rate of 2 ml/kg/h. Diuretics are used where urine is dark and blood stained to prevent blockage of Foley catheter. Daily input and output charts are maintained to prevent risks of over hydration and to decide the amount of fluid to be given in next 24 h.

The fistulas were repaired either through trans-vaginal or trans-vesical or trans-abdominal or through a combined trans-abdomino-vaginal route. None was repaired laparoscopically or robotically. Basic principles remained the same irrespective of the approach and technique used.

There is always a confusion about the hospitalization of fistula women, therefore such neglected women keep on moving from one to the other department without getting any help or assurance from any department, therefore, some of them ultimately visit quacks, tantrics, sadhus, sants and saints, general practitioners, and the precious time is being lost without any gain. Neither they are properly diagnosed in time nor they are given right advice; hence, the hospitalization, diagnosis and repair are delayed at the cost of further precipitation of psychological and financial problems.

Having observed all the above mishappen and misconduct with fistula women, the authors have decided to bring out the factors responsible for delayed diagnosis and unduly delayed treatment of urinary fistulas, which are responsible for their increased sufferings. Certain guidelines have been framed to help such deprived women to get scientific management in time, so that they can be rehabilitated

early to minimize occurrence of permanent disabilities and morbidities.

Attempts towards solving problems of FUGFs patients:

1. Have a sympathetic attitude towards such destitute and socially discarded and deprived group of women.

2. Give them priority for examination in out-patient department over other elective patients.

3. Do not socially segregate them in the ward from other admitted patients.

4. No partiality while providing any help or medications.

5. Always investigate them as semi-emergency patients.

6. Eradicate bacterial or fungal infections from urogenital tracts and perineum.

7. Teaching and training of patient to enable them cooperate in post-operative periods in the presence of tubes, catheters, sutures and dressing.

8. Detailed history, counseling and informed consent including the need of hysterectomy or colpocleisis are to be discussed in the office of head of obstetrics and gynecology department in the presence of patient, her-life partner, parents and family members.

9. Seek suggestions from all fistula team members and consider them seriously in the interest and betterment of fistula patients.

10. Ensure adequate pre-operative preparation.

11. Do not plan as per the convenience of the team members rather plan in the interest of patient. Put all efforts to reserve anatomy and functions of her pelvic organs.

12. Keep patient on serial number one of the operation list and do not find any excuse for its postponement.

13. Observe all aseptic measures at all steps of examination, pre-operative preparation, post-operative care, insertion or removal of tubes and catheters and change of dressings.

14. Keep a bed reserved in ICU or HDU in the vicinity of nursing station.

15. Urgent attention to minor or major complaints in the post-operative periods.

16. Special care of Foley catheter to ensure free and un-interrupted outflow of urine without blood clots and debris.

17. Adequate or marginal over hydration to prevent blockage of Foley catheter and ureteric tube.

18. Earliest detection of post-operative complications before they become un-manageable or out of control to produce permanent disabilities or morbidities.

19. Timely removal of catheters and drains including sutures for fear of infection.

20. Nothing to be kept hidden from the patient, partner and relatives about surgery and its outcome.

21. Take all precautions against recurrences by independent closure of urinary and genital tract at right angle to each other with an interposition flap as a water-proofing measure.

22. Early rehabilitation (socially, financially and maritally) after discharge.

23. Establishment of Training Centers or Fistula Hospitals manned by experienced Obstetricians and Gynecologists.

24. Permanent constitution of fistula team with plastic surgeon its captain to enable taking quick decision regarding planning of repair.

25. Awareness through media, newspapers, broadcasting, lectures and conferences for (i) decreasing the incidence, (ii) promoting early detection and diagnosis and (iii) encouraging timely hospitalization and repair, thus encouraging early rehabilitation before the onset of psychological trauma.

26. Fistula Homes in highly prone zones for successful and failed repairs.

27. Strengthening of obstetrical and gynecological health services to obviate tissue necrosis due to prolonged obstructed labor.

28. Reproductive help and adoption facilities are given in those who had hysterectomies.

29. Ante-Natal Care (ANC), free transport and timely LSCS before onset of tissue damage and un-treatable distress to baby.

30. Early detection and timely repair to maintain self-esteem of affected women in the society.

31. Per-operative exclusion of injury to urogenital tract, and if detected, the immediate repair will have better results due to healthy and un-scarred tissues, thus leaving no chance of thinking to have ever developed urinary fistula and its associated disabilities.

32. Positive psychotherapy is always needed till the fistula has not been repaired successfully and rehabilitation has not been completed satisfactorily.

33. Encourage moral boosting to minimize (i) risks of long-lasting fistula induced mental trauma and (ii) phobia of subsequent pregnancies.

34. Availability of Onco-gynecologist and Pelvic Floor Surgeon for safe surgical procedures in advanced pelvic malignancies without fear of fistulizations.

35. Special clinics on Urogynecology and Pelvic Floor dysfunction to regain pelvic floor strength and betterment in urinary continence.

Note: Apart from providing facilities for safe delivery and emergency caesarean section by trained and experienced obstetricians and gynecologists, there should be facilities for minimal invasive surgical procedures by laparoscopic and robotic repairs to (i) decrease post-operative discomfort, (ii) decreased down time, (iii) early return to work, (iv) increase acceptability of repair, (v) decrease hospital stay and (vi) consider cosmetic aspects in sensitive group of women.

Conclusion

Women with uro-genital fistula, having continuous urinary leakage in undergarments and on floor, need priority at all stages starting from: Counseling and consent, hospitalization, investigations, repair on priority, availability of fistula team, vigilant post-operative care, regular follow-ups till rehabilitation, betterment in social and

sexual relations, financial rehabilitation, employment, facilities for subsequent safe delivery and caesarean section, free transport facilities round the clock, strengthening the primary health centers and establishment of Fistula Clinics, Fistula Hospital and Research Centers. The main emphasis is on: Identification of high-risk group of women and their early hospitalization, cutting short of obstructed labor before the onset of irreversible tissue necrosis and fistulizations and nullifying all risks responsible to harm the new born in any form. The authors have tried to find out the ways and means to fasten quick and semi-emergent management of urinary fistula women on priority over other elective patients and also had given the reasons for doing so.

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