ISW26-425-01 (0957)

INCREASED BREAST CANCER INCIDENCE AND SOCIETAL FACTORS AFFECTING INDEX PRESENTATION AT LABASA HOSPITAL,FIJI

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Introduction:
Breast cancer disproportionately affects low and middle income countries with increased mortality rates compared to high income countries.For the Pacific Island country of Fiji, numerous factors have been hypothesised for the high mortality rate.Delay in initial presentation is thought to be a major contributor. This delay is poorly understood.

Material and Method:
A retrospective mixed method study of patients who were diagnosed with breast cancer at Labasa Hospital in Fiji from 2018-2022 was conducted.Incidence and mortality rates were obtained from hospital records. Further demographic information and factors pertaining to index hospital presentation were obtained from patient interviews.

Results:
There were 112 histologically confirmed cases of breast cancer at Labasa Hospital with an increase in incidence over the study period from 13 to 24.3/100000 (<0.05).Sixty-three patients were able to be interviewed with a mean age of 55.2 years (+/-13.4). The mean time from symptom onset to initial presentation was 86.5 weeks (+/-152) and the time from diagnosis to treatment was 13.4 weeks (+/-12.4)Six major themes were identified as barriers to early hospital presentation. These were lack of knowledge, fear, health care system delay, preferences for alternative treatment, financial difficulties and lack of family support.

Conclusion:
Breast cancer incidence continues to rise in Fiji with substantial delays from symptom onset to initial presentation. Six major themes were identified as reasons for the delay in presentation

ISW26-425-02 (0933)

CURRENT TRENDS IN REVISION SURGERY AFTER BREAST RECONSTRUCTION IN CHINA: INSIGHTS FROM A NATIONWIDE CROSS-SECTIONAL SURVEY

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Introduction:
Revision surgery is an integral component of post-mastectomy breast reconstruction, aimed at enhancing breast aesthetics and improving patient satisfaction. While developed countries have established high rates of revision surgery, its implementation in China remains limited. We aimed to evaluate the current practices and challenges of revision surgery in Mainland China using a nationwide cross-sectional survey.

Material and Method:
A nationwide questionnaire authorized by the Chinese Anti-Cancer Association and related committees was distributed to 198 hospitals in China performing over 200 annual breast cancer surgeries. Data on nipple-areola complex reconstruction (NAR), autologous fat grafting (AFG), and contralateral breast symmetry surgery were collected and analyzed.

Results:
Of the 198 surveyed hospitals, 23.2% performed NAR, 17.2% conducted AFG, and 26.8% carried out contralateral breast symmetry surgery, with only 6.6% providing all three. The implementation of revision surgery in China was unevenly distributed. Regarding NAR, both the time interval between primary breast reconstruction and NAR, and the diverse techniques of NAR were to note. The use of autologous or allogenic grafts has proven to improve long-term nipple projection ($r=-0.339$, $P=0.021$), but its usage was still limited. AFG has wide application in breast reconstruction, with the most common use remaining the correction of deformities after lumpectomy or breast reconstruction after mastectomy. Contralateral breast symmetry surgery was widely accepted by patients, and a simultaneous procedure was more favored ($P<0.001$).

Conclusion:
The implementation of revision surgery in China remains insufficient. Targeted efforts to expand specialized training, improve resource allocation, and adopt advanced techniques are essential.

ISW26-425-03 (0963)

BEYOND SURVIVAL: CULTURAL STIGMA, SILENCE AND THE FORGOTTEN NEED OF SEXUAL QUALITY OF LIFE AMONG INDIAN BREAST CANCER SURVIVORS

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Introduction:
With breast cancer survivorship steadily increasing, attention is now shifting from mere survival to quality of life. Among the most neglected dimensions is sexual health—a domain deeply affected by cancer and its treatment, yet rarely addressed in clinical practice, especially in conservative cultural contexts like India.We aimed to evaluate the sexual quality of life (SQL) among Indian breast cancer survivors.

Material and Method:
A cross-sectional, mixed-methods study was conducted at a tertiary teaching centre in central India. Fifty-five women who had undergone breast cancer treatment were assessed using the Sexual Activity Questionnaire (SAQ). Quantitative data were supplemented with in-depth interviews among sexually inactive participants. Chi-square analysis was used to identify factors associated with sexual activity status.

Results:
Only 12 of 55 women (21.8%) reported being sexually active. Among them, over 90% experienced moderate to high satisfaction despite reduced frequency. The mean SAQ pleasure and discomfort scores were 0.92 and 0.54, respectively, with habit scores uniformly zero. Among the 43 sexually inactive women, key reasons for celibacy included body image issues, myths about cancer transmission, partner abandonment, and cultural silence. Age group was the only statistically significant factor associated with sexual activity ($p = 0.011$); menopausal status, education, surgery type, and hormonal therapy were not significant.

Conclusion:
While sexual dysfunction post-breast cancer is globally prevalent, it is uniquely exacerbated in the Indian patients by cultural silence, stigma, and systemic neglect. There is an urgent need for culturally sensitive communication training, patient education, and the inclusion of sexual rehabilitation in standard survivorship protocols.

ISW26-425-04 (0928)

CAN A LOW COST, EASILY AVAILABLE SPECIMEN X-RAY (IOSX) REPLACE SPECIMEN MAMMOGRAPHY (IOSM) FOR INTRAOPERATIVE ASSESSMENT IN PATIENTS UNDERGOING POST NEOADJUVANT SYSTEMIC THERAPY BREAST CONSERVATIVE SURGERY?

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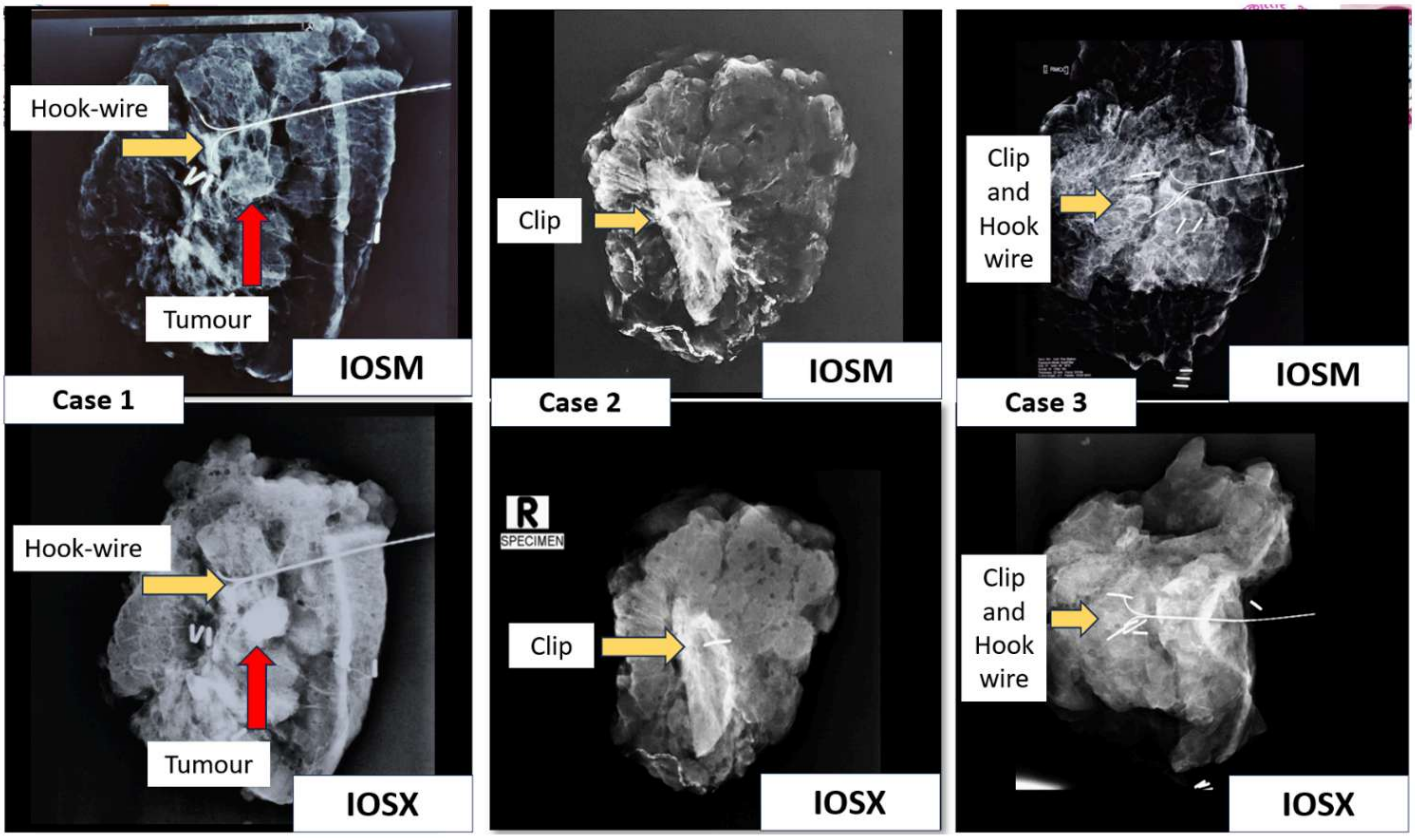
Introduction:
Post-neoadjuvant-systemic-treatment(NAST) Breast-conserving-surgery(BCS) in early-breast-cancer(EBC) and locally-advanced-breast cancers(LABC) is aided by pre-NAST marking of tumour with clips. Clips are localized with stereotactic-hookwire, and Intraoperative specimen-mammography(IOSM) performed for intraoperative assessment of BCS specimens. In resource-poor settings, lack of mammography machines and expertise limits IOSM usage. Conventional digital X-ray machines are widely available, low-cost, not requiring specific expertise. This Prospective pilot study compared utility of IOSM and intra-operative specimen-X-ray(IOSX) in clip/hookwire localization and tumour-margin assessment in post-NAST BCS specimen.

Material and Method:
Forty patients with tumor-marking clips in-place, undergoing hookwire guided post-NAST BCS(Jan2024-June2025) were prospectively enrolled. BCS specimen were imaged by IOSM and IOSX. IOSX film-focus distance(FDD~70cm) and kilovoltage(40KV;25mAS) matched mammography. Diagnostic information derived-including clip/hookwire, margin, and calcification visibility, were scored by radiologist, senior-surgeon and junior-surgeon as excellent/completely-2, poorly-1, or not visible-0, and compared using appropriate statistical methods. Clip/hookwire proximity to margins(involved/univolved) on both modalities and their impact on intraoperative plan were studied. Gold-standard histology for margin assessment guided subsequent margins management.

Results:
Clip/hookwire visibility was similar in both techniques(Median score IOSM vs IOSX[max-min]=6[6-6]vs6[3-6];p=0.317). IOSX limited microcalcification visibility significantly(6[0-6]vs2[0-6];p=0.04). Tumour-margin was accurately assessed on IOSX (6[2-6]vs4[0-6];p=<0.001). Visibility of clips/hookwire proximity to margins was comparable as shown in Figure-1, leading to re-excisions in all suspected cases. Minimal interobserver variability was noted for the three parameters(p>0.05).

Conclusion:
IOSX demonstrated sufficient diagnostic capability, comparable to IOSM with no compromise in immediate oncological outcomes. Given its wider availability, low-cost and ease-of-use, IOSX can replace IOSM as feasible and cost-effective alternative in resource-constrained settings, potentially expanding access to intraoperative assessment in BCS.

Figure-1. Image comparison between IOSM (upper row) and IOSX (lower row)



ISW26-425-05 (0534)

FEASIBILITY OF AXILLARY REVERSE MAPPING USING LOW-COST FLUORESCEIN DYE AND METHYLENE BLUE DYE

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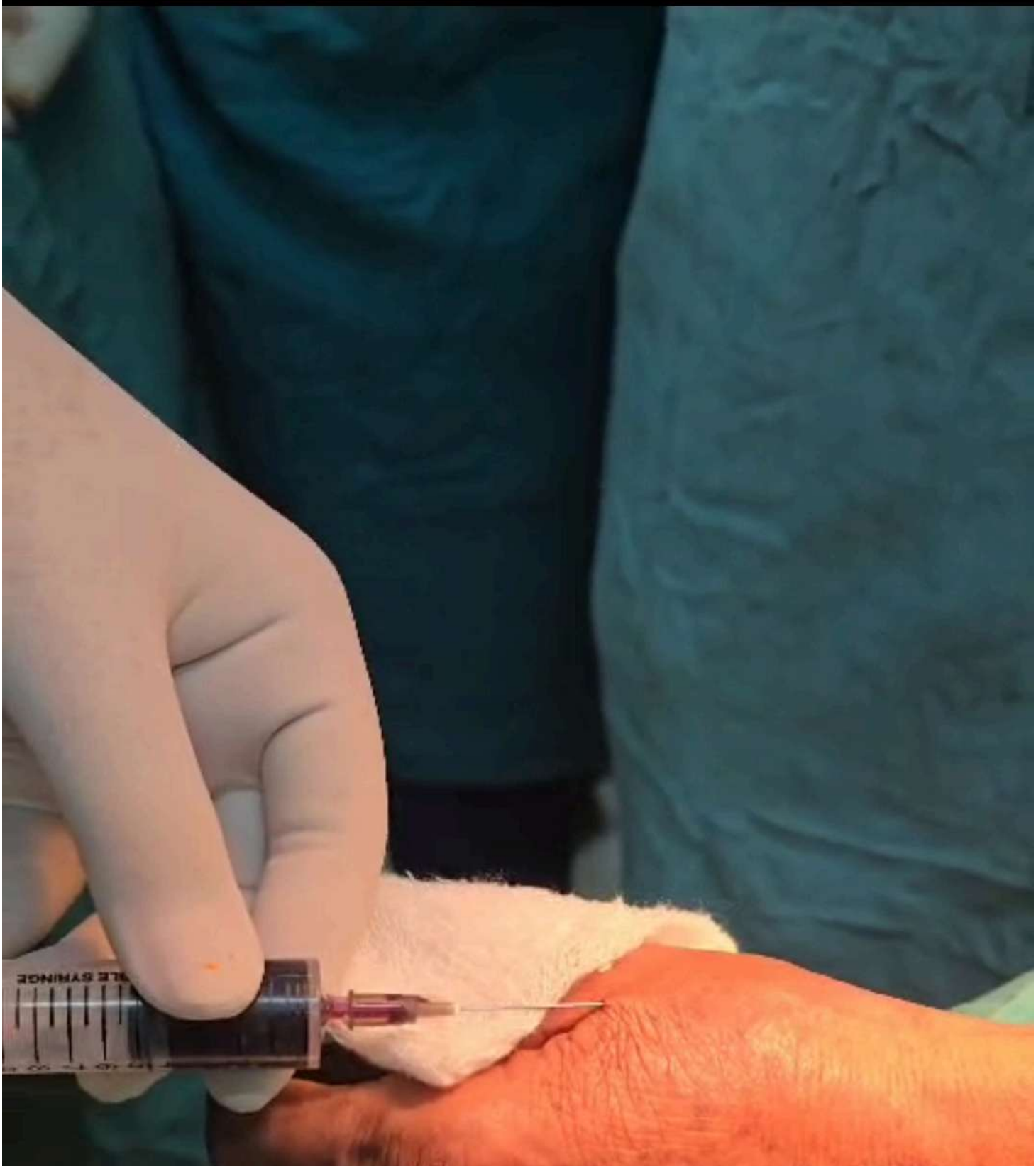
Introduction:
Axillary Reverse Mapping (ARM) is a technique aimed at preserving the lymphatic drainage of the arm during axillary lymph node dissection, thereby reducing the risk of lymphedema in breast cancer surgery. High-cost dyes and advanced imaging technologies often limit its widespread adoption, especially in resource-limited settings. This study explores the feasibility and safetyof using low-cost Fluorescein and Methylene Blue dyes for ARM.

Material and Method:
A Randomised control trial was conducted involving breast cancer patients undergoing axillary lymph node dissection. Fluorescein dye and Methylene Blue dye were injected intraoperatively into the arm and breast, respectively, to delineate lymphatic pathways. The visualization rates, identification of ARM lymphatics, crossover rates between breast and arm lymphatics, and associated complications were assessed.

Results:
Fluorescein dye successfully delineated arm lymphatics in 80% of cases under blue light, while Methylene Blue dye visualized axillary lymphatics in 90% of cases. Crossover of lymphatic pathways was noted in 10% of patients, aiding in strategic node preservation. No significant complications such as allergic reactions or staining were observed. The combined use of Fluorescein and Methylene Blue proved highly cost-effective, with expenses significantly lower than conventional techniques.

Conclusion:
The use of low-cost Fluorescein and Methylene Blue dyes for ARM is a feasible and safe alternative in resource-constrained settings. This technique can facilitate broader implementation of ARM, potentially improving patient outcomes by reducing lymphedema risks without substantial financial burden.



ISW26-425-06 (0394)

HIJACKING HORMONE SIGNALING IN BREAST CANCER: GLUCOCORTICOID RECEPTOR AFFINITY FOR MIFEPRISTONE (RU486) MAY UNLOCK PATIENT SURVIVAL

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Introduction:
Glucocorticoid receptor (GR) signaling plays a dual role in breast cancer, influencing both tumor suppression and progression. While glucocorticoids (GCs) are commonly used to manage chemotherapy side effects, they can also promote chemoresistance, immune evasion, and tumor growth. Mifepristone (RU486), a selective GR antagonist and anti-progesterone agent, has emerged as a potential therapy to counter these adverse effects by restoring chemotherapy sensitivity and modulating immune responses. This systematic review explores mifepristone's potential to target GR-mediated pathways, aiming to improve outcomes in breast cancer patients.

Material and Method:
A systematic review was conducted in line with PRISMA guidelines. Searches of PubMed, Cochrane Library, and EBSCO identified 450 peer-reviewed studies from the past decade. Thirty met inclusion criteria, focusing on human breast cancer cases involving GCs or RU486. Key data on treatment response, chemoresistance, immune modulation, survival, and recurrence were extracted. Study quality was assessed using the Cochrane Risk of Bias Tool.

Results:
GC exposure correlated with increased recurrence, metastasis, chemoresistance, and reduced immune surveillance. RU486 significantly inhibited GR activity, reducing proliferation markers by 50%, reversing GC-induced chemoresistance, enhancing immune infiltration, and promoting apoptosis. It also showed promise in preventing metastasis via extracellular matrix remodeling and in reducing cancer incidence in BRCA1/2 carriers. RU486 disrupted cortisol-driven inflammatory and metabolic pathways linked to recurrence, and was particularly effective in tumors with high progesterone receptor isoform A.

Conclusion:
RU486 shows promise as a therapeutic adjunct by delivering both anti-cancer effects and reversing glucocorticoid-induced adverse outcomes, particularly in hormone-dependent and triple-negative breast cancers. Further clinical research is warranted.

Hijacking Hormone Signaling in Breast Cancer: Glucocorticoid Receptor Affinity for Mifepristone (RU486) May Unlock Patient Survival

By: Macy Jepsen, Third Year Medical Student TSM

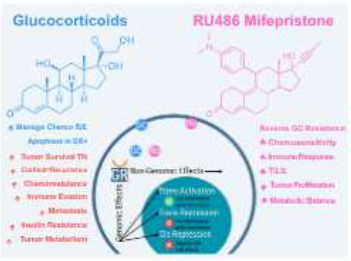
Introduction

Glucocorticoid receptor (GR) signaling plays a dual role in breast cancer, influencing both tumor suppression and progression. While glucocorticoids are traditionally used to manage chemotherapy side effects, they can also induce chemoresistance and promote immune evasion and tumor growth.

Mifepristone (RU486), an anti-progesterone and selective GR antagonist, has emerged as a promising agent capable of reversing glucocorticoid-induced pro-survival signaling, restoring chemotherapy sensitivity, and modulating immune responses.

This systematic review investigates the therapeutic potential of mifepristone in targeting GR-mediated pathways, aiming to improve survival and reduce recurrence.

Aspect	Glucocorticoids (GCs)	RU486 (Mifepristone)
Usage	Manages chemotherapy side effects	Antagonizes GC-induced tumor survival mechanisms
Inflammatory Response	Suppresses inflammation but may promote immune evasion	Enhances immune surveillance and reduces inflammation
Chemoresistance	May induce chemoresistance	Restores chemotherapy sensitivity
Tumor Proliferation	Potentially promotes tumor growth	Reduces tumor proliferation
Survival Impact	Linked to increased recurrence	Improves survival rates



Materials

Peer-reviewed studies from 2015 to 2025 focused on glucocorticoids, RU486, and hormone- dependent cancers.
Clinical trials, laboratory studies, and systematic reviews evaluating tumor progression, chemoresistance, immune response, and treatment efficacy.
Data sources: PubMed, Cochrane Library, EBSCO.

Methodology

This study followed a rigorous systematic review process based on PRISMA

(Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. A comprehensive literature search was conducted using electronic databases, including PubMed, Cochrane Library, and EBSCO, to identify relevant peer-reviewed studies published between 2010 and 2025.
The study selection process involved multiple stages:

1. Identification: Keywords such as "glucocorticoids," "RU486," "breast cancer treatment," "chemoresistance," and "tumor progression" were used to retrieve relevant literature.

2. Screening: Titles and abstracts of identified studies were reviewed for relevance. Studies that did not focus on breast cancer treatment or lacked sufficient data were excluded.

3. Eligibility: Full-text articles were assessed based on predefined inclusion and exclusion criteria. Only studies that examined the effects of GCs and RU486 on breast cancer outcomes were included.

4. Data Extraction and Analysis: Key variables extracted included treatment type, tumor progression, immune modulation, survival outcomes, and chemoresistance. Data were synthesized through qualitative and quantitative analysis, comparing the therapeutic impact of GCs and RU486.

A comparative analysis was conducted to evaluate the differential effects of GCs and RU486 on breast cancer progression and treatment efficacy. The findings were categorized based on chemoresistance, immune system impact, and overall survival benefits.

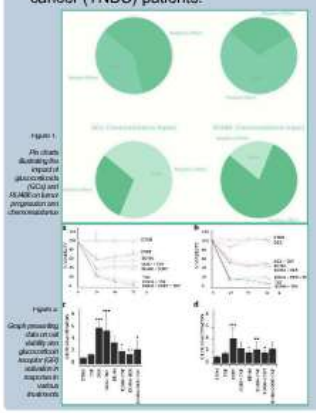
Results

Glucocorticoids (GCs):

- May induce chemoresistance by activating GR-mediated pro-survival genes.
- Promote tumor immune evasion by suppressing cytotoxic T cells and enhancing cancer-associated fibroblasts (CAFs).
- Associated with breast-to-brain metastasis through cortisol-induced blood-brain barrier disruption.
- Chronic GC exposure linked to increased recurrence in postmenopausal breast cancer patients.

RU486 (Mifepristone):

- Antagonizes GR signaling, restoring chemotherapy sensitivity and reducing tumor proliferation.
- Enhances tumor-infiltrating lymphocytes (TILs), improving immune surveillance.
- Decreases extracellular matrix deposition, limiting tumor invasion and metastasis.
- Clinical trials show significant reduction in tumor proliferation markers (Ki67) and improved survival in triple-negative breast cancer (TNBC) patients.



Discussion

Cortisol & GCs in Breast Cancer: GCs may induce apoptosis in ER+ tumors but promote survival in TNBC. Elevated cortisol correlates with recurrence, especially in postmenopausal women on endocrine therapy.
GC-Induced Adverse Effects: While GCs manage chemotherapy side effects, prolonged use promotes chemoresistance, immune evasion, and metastasis, particularly via claudin-5-mediated brain metastases.
RU486 as an Alternative: RU486 reverses GC-driven resistance, enhances chemosensitivity, and boosts immune response. The MIPRA trial found it reduced tumor proliferation (Ki67) and increased TILs.
Metabolic Impact: GCs drive insulin resistance and tumor metabolism, while RU486 restores metabolic balance and may offer protective DNA methylation effects.
Clinical Implications: Further trials are needed to assess RU486's efficacy. Optimizing GR-targeted strategies, biomarkers, and combination therapies could improve outcomes, particularly in hormone-dependent cancers.

Conclusion

RU486 shows strong potential as a therapeutic adjunct, offering both anti-cancer effects and reversal of glucocorticoid adverse effects.
Targeting GR-mediated signaling may reverse chemoresistance, restore immune function, and reduce tumor progression, particularly in hormone-dependent and triple-negative subtypes.
Further clinical studies are needed to establish its role in personalized therapy.

Acknowledgements

This research is based on a comprehensive literature review comparing the efficacy of glucocorticoids and RU486 in breast cancer treatment. The author acknowledges the contributions of the research community in advancing breast cancer therapeutics and appreciate the support of academic institutions and funding agencies that facilitate ongoing studies in this field.

ISW26-425-08 (0856)

"THINK BEFORE YOU CUT- PRESERVE TO PERFORM"- A RANDOMIZED TRIAL ON INTERCOSTOBRACHIAL NERVE PRESERVATION AND RECOVERY OF SHOULDER FUNCTION AFTER AXILLARY DISSECTION IN CARCINOMA BREAST PATIENT

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Introduction:
The intercostobrachial nerve (ICBN), a purely sensory branch from the second intercostal nerve(T2), is frequently transected during axillary dissection in breast cancer surgery, risking sensory disturbance and impaired shoulder mobility. This prospective randomized controlled trial was conducted at tertiary care centre in North India to determine the functional impact of ICBN preservation on postoperative shoulder range of motion (ROM).

Material and Method:
Total 140 patients were randomized into two groups: ICBN preservation (n= 70) and ICBN transection (n=70). Study period included from August 2024 till August 2025. ROM and sensory function were assessed preoperatively and postoperatively at 1-, 3-, and 6-months using goniometry and DN4 neuropathic pain questionnaire.

Results:
This is an interim analysis of an ongoing research. Preliminary results shows that in the preservation group, ROM improvement was observed in 22.5% at 1 month, 28.4% at 3 months, and 43.5% at 6 months (total 65%). Compared to the ICBN transected groups (mean improvement: 16.7%), results were significantly better at 1 and 6 months ($p < 0.03$). Subgroup analysis revealed stepped improvement rates: 74.2% (both branches preserved), 62.5% (single branch), and 30.4% (lower branch only), with a perfect positive correlation (Spearman's $\rho = 1.0$, $p < 0.001$) between extent of nerve preservation and functional recovery.

Conclusion:
ICBN preservation significantly enhances postoperative shoulder ROM, with maximal benefit when both upper and lower branches are spared. These findings advocate for routine nerve-sparing dissection during axillary clearance to optimize functional outcomes in breast cancer patients.

Parameter	ICBN Preservation Group (n=70)	ICBN Transection Group (n=70)	Remarks / Significance
Mean Age (years)	48.2 ± 9.3	49.1 ± 8.7	Comparable age distribution
Mean Lymph Nodes Dissected ± SD	13.65 ± 2.3	15.82 ± 2.6	Total nodes ≈ 956
Patients with Improved ROM	65.7% (46/70)	22.8% (16/70)	Significantly better recovery with preservation
ROM Improvement at 1 Month	**22.5%**	**11%**	**p < 0.03**
ROM Improvement at 3 Months	28.4%	17.5%	Not statistically significant
ROM Improvement at 6 Months	**43.5%**	**21.5%**	**p < 0.03**
Neuropathic Pain (DN4 ≥ 4)	**7.1%**	**22.8%**	Lower neuropathic scores in preserved group
Early Breast Cancer	32.9%	18.6%	Percentage of preservation was more in EBC
Locally Advanced Breast Cancer	67.1%	81.4%	Percentage of transection was more in LABC

Table depicting birds eye view of case and control groups

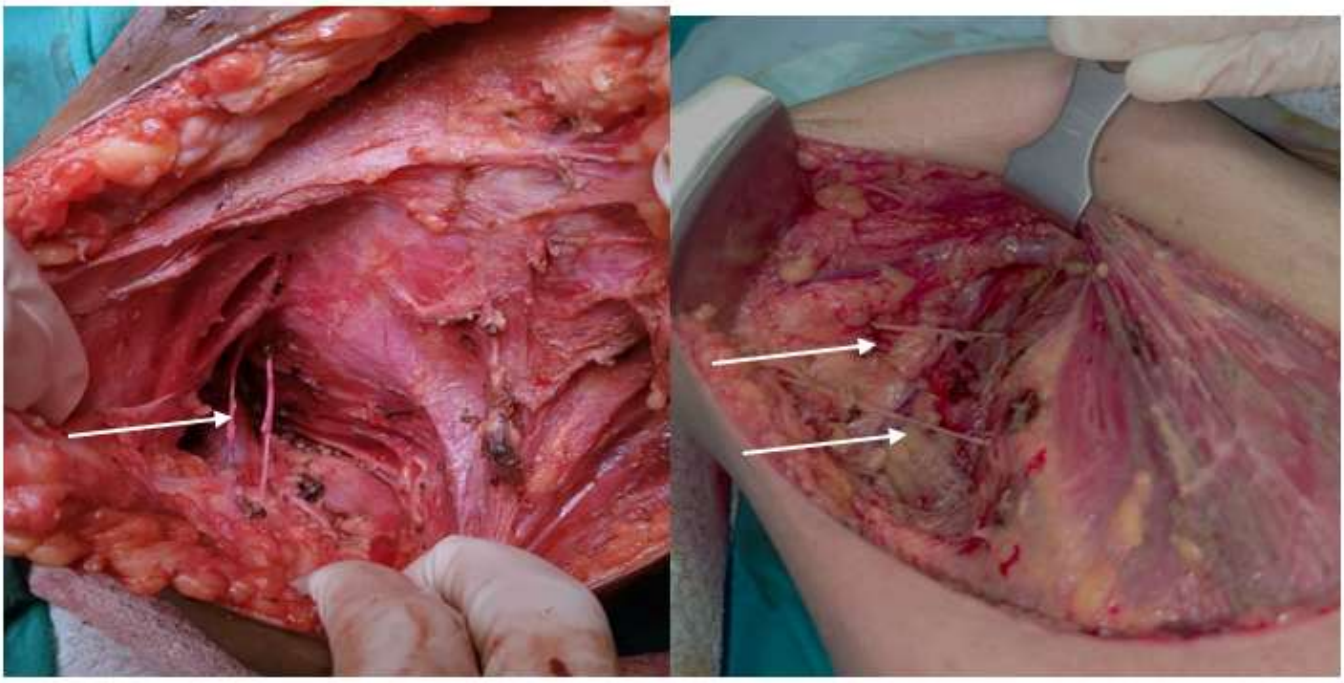

Figure depicting Preserved ICBN during ALND post-MRM preserving both branches of ICBN

ISW26-PE425 (1373)

RESOLUCIÓN LAPAROSCÓPICA DE PERSISTENCIA DEL URACO

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Introduction:
El uraco es una estructura tubular que se extiende cranealmente desde la cúpula anterior de la vejiga hasta el ombligo. Las anomalías del uraco resulta de la involución incompleta de esta estructura embrionaria. El diagnóstico es difícil debido a la ausencia de un protocolo diagnóstico. Aunque es raro, los remanentes de uraco pueden pasar desapercibidos hasta la edad adulta.

Material and Method:
Masculino de 43 años de edad, el cual acude a valoración por sintomatología de mas de 6 meses de evolución con dolor umbilical y exudado fétido. El cual nos refiere que dicha sintomatología se presenta de forma intermitente, con periodos de remisión y de exacerbación. A la exploración física observamos la presencia de exudado fétido umbilical acompañado de dolor en el mismo sitio. Se sospechó de persistencia de uraco, razón por la cual se decidió intervenirlo quirúrgicamente mediante abordaje laparoscópico.

Results:
Se identificó el uraco y se procedió a abrir el peritoneo parietal con energía monopolar, realizandose la disección de todo el trayecto del uraco, que va desde la vejiga hasta la cicatriz umbilical. Posteriormente se colocaron grapas en en el extremo vesical y umbilical, seguido de corte con tijera. Se procedió a retirar la pieza quirúrgica y finalmente se recolocó en su lugar anatómico la vejiga.

Conclusion:
El abordaje laparoscópico permite una resección completa del uraco, pudiendo ser observado en todo su trayecto, lo que permite disminuir las altas recidivas que ofrece el abordaje abierto.