7" 0.0% (0/23), "8 to 10" 8.7% (2/23); and>10 in 43.5% (10/23), respectively. Baseline MRI stage-T4 in 10/23 (43.5%). Following systemic therapy, mean prostate volume reduced from 45.6cc (SD 19.4) to 25.2cc (SD 11.8) (p=0.0002). Complete pathological response on repeat biopsy occurred in 11.1% (95%CI 2.35-29.16%). Cytoreductive treatments were cryotherapy+PLND 6/23 (26.0%), cryotherapy 17/23 (43.5%) and HIFU 6/23 (26.1%). Median operating time was 110.8 (IQR 90.5−188.5) minutes. pN1 was present in 83.3% (5/6) of PLND with median lymph node retrieval of 14.5 (IQR 8.3−22.5). Median pre-operative PSA was 1.0 (IQR 0.22−1.45) ng/ml and post-operatively 0.1 (IQR 0.02−0.82) ng/ml. Trial without catheter was successful in 91.3% (21/23) with 1 pad use per day in 2/23 (8.7%). No patients reporting >/=2 pad use per day. No intraoperative blood transfusions, abandoned procedures, recto-urethral fistulae or CTCAE Grade 4 and 5. Common complications: 8.7% (2/23) urinary retention, 8.7% (2/23) genital oedema, and haematuria requiring intervention 4.3% (1/23).

CONCLUSIONS: In unselected patients with *de novo* mHSPC, and irrespective of large baseline disease volumes, cytoreductive prostate ablation with or without PLND is safe and feasible following upfront systemic therapy. Trial data on the efficacy of such novel therapies compared to prostatectomy or radiotherapy is maturing.

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IP26-37

THE CASE FOR, AND CHALLENGES TO, USING TRANSDERMAL ESTRADIOL FOR ANDROGEN DEPRIVATION THERAPY

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INTRODUCTION AND OBJECTIVE: Recent level 1 phase III randomized-control trial (RCT) data show that transdermal estradiol (tE2) patches are as effective as luteinizing hormone releasing hormone agonists for Androgen Deprivation Therapy (ADT) (Langley et al., ESMO 2024). Prostate cancer (PCa) patients using tE2 patches for ADT experience few, if any, hot flashes and overall better quality of life. Estradiol (E2) also protects bone mineral density, decreasing the need for bone protective agents. However no tE2 products are approved for men, so tE2 is currently an off-label treatment with physicians reluctant to prescribe and payers resistant to reimburse. Consequently, many patients explore alternative tE2 formulations that are cheaper than those used in the study cited above, but with little supporting data on their efficacy or safety. Our aim here was 1) to review existing tE2 products that could be used for ADT and 2) to highlight challenges to making tE2 available to PCa patients.

METHODS: We interrogated Pubmed, Google Scholar, and several international PCa chat lists for information on patients' experience with tE2 products. Data included formulation, delivery system, ease of use, application period, variation of serum tE2 levels over time, as well as cost.

RESULTS: We identified 11 commercially available tE2 patch products that are marketed as releasing 100 mcg of E2, assessed 24 hours after initial application. We found average and peak serum E2 levels varied by factors of 2.8X and 2.5X respectively in post-menopausal women, with similar variations in men for two of the brands. The RCT evidence used Femseven and Progynova TS 100 mcg patches initially 4 patches changed twice weekly, then 3 patches twice weekly when testosterone was<1.7 nmol/L. Serum E2 was measured (alongside PSA and testosterone), with a target range for E2 of 300-2000 pmol/L. Equivalent data are currently lacking for alternative tE2 products and the corresponding costs for achieving the same level of androgen suppression. Formal cost/benefit analyses are warranted that encompass direct product cost and cost savings when bone protecting agents are not required.

CONCLUSIONS: Despite randomized phase III data endorsing tE2 for ADT, PCa patients encounter barriers to accessing tE2. Our data indicate the need for further research on tE2 products to treat PCa. There is currently a strong case for a license extension of products initially developed to treat menopausal symptoms in women. Making tE2 products a standard of care option for men needing ADT should be a high priority for the prostate cancer community.

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IP26-38

EXTENDED SURVIVAL OF LUNG METASTASIS IN PROSTATE CANCER PATIENTS AND PROGNOSTIC IMPACT OF RB/P53/PTEN TISSUE BIOMARKERS

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INTRODUCTION AND OBJECTIVE: Among visceral metastasis from prostate cancer, lung metastasis (LM), unlike liver metastasis, is less frequently reported for the prognostic implication. This study investigated the survival and immunohistochemical expressions of RB, p53, and PTEN associated prognosis of patients with prostate cancer and pathologically confirmed LM, and compared the survivals between LM and liver metastasis.

METHODS: Patients with prostate cancer between 1999 and 2023 from National Taiwan University Hospital were screened for pathologically diagnosed lung or liver metastasis, mainly with positive NKX3.1 or PSA staining on biopsy or surgical specimen. RB, PTEN, and p53 expressions were graded from both the prostate and lung metastasis tissue sections. Survivals were separately calculated from the diagnosis of prostate cancer to lung/liver metastasis, and from lung/liver metastasis to death or last follow-up visit. Survival analyses were conducted using Kaplan-Meier method, and prognosis were compared using log-rank test.

RESULTS: Twenty-five patients with LM and 44 patients with liver metastasis of 11615 prostate cancer patients were evaluated. The 3-year overall survival rates of patients with lung or liver metastasis were 87% and 59% (p=0.009), respectively. The median latent periods from prostate cancer diagnosis to LM or liver metastasis were 75 months and 27 months, respectively. The median survivals after LM or liver metastasis (post-metastasis survival) were 51 months and 7.5 months, and the 3-year post-metastasis survival rates were 59% and 21% (p<0.001), respectively. Notably, patients with LM overexpressing RB, PTEN, or p53 in lung tumor tissue had significantly shorter post-metastasis survival than patients without none of them (median 7 months vs. 109 months; p=0.033). There was also a trend toward shorter overall survival (median survival: 55 months vs. 139 months, p=0.09). Besides, patients with≥2 additional organ (bone, liver, lymph node, brain, or adrenal gland) metastases to LM had significantly shorter post-metastasis survival (median 17 months vs. 109 months, p<0.001) and significantly shorter overall survival (median 52 months vs. 139 months, p=0.001) than none or one additional organ metastasis.

CONCLUSIONS: Prostate cancer patients with LM, compared to liver metastasis, had much longer latent period and extended survival. RB, PTEN, or p53 overexpression in LM tissue and ≥2 additional organ metastases were associated with significantly worse survivals in this subgroup of visceral metastasis.

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IP26-39

THE COMPARATIVE ANALYSIS OF FOUR LARGE LANGUAGE MODELS FOR RISK ASSESSMENT AND INFORMATION RETRIEVAL FROM MULTI-MODALITY PROSTATE CANCER WORK-UP REPORTS

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INTRODUCTION AND OBJECTIVE: Information retrieval (IR) and risk assessment (RA) from multi-modality imaging and pathology reports are critical to prostate cancer (PC) treatment. This study aims to evaluate the performance of four general-purpose large language models (LLMs) in IR and RA tasks