## (08) 乳癌個人化醫療照顧與臨床實證

## Personalized Care and Clinical Evidence in Breast Cancer

時 間:114年6月28日(星期六)08:30~12:10

地 點:臺北榮民總醫院 致德樓第十樓會議室

08:30-08:40	Opening Remarks	曾令民副院長 Ling-Ming Tseng
	座長:趙祖怡 教授 (Tsu-Yi Chao)	
08:40-09:10	Trop2 ADC 在轉移性三陰性乳癌中的發展與數據回顧 Evolving Role of Trop2 ADCs in mTNBC Data review	劉峻宇醫師 Chun-Yu Liu
	座長: 趙大中 醫師 (Ta-Chung Chao)	
09:10-09:40	HR+轉移性乳癌治療的最新進展: Inavolisib 的臨床應用前景 The evolving treatment landscape with novel therapeutics in metastatic HR+ BC with Inavolisib	黃其晟醫師 Chi-Cheng Huang
	座長:蔡宜芳 醫師 (Yi-Fang Tsai)	
09:40-10:10	早期 HER2+ 乳癌的個人化治療:推動以病人為中心的解 決方案 Personalized Care in Early HER2+ Breast Cancer: Advancing Patient-Centered Solutions	陳彥蓁醫師 Yen-Jen Chen
10:10-10:30	Coffee Break	
	座長:曾令民 副院長 (Ling-Ming Tseng)	
10:30-11:00	優化 HER2 陽性早期乳癌病患之健康及生活品質 Enhancing health-related quality of life in HER2-Positive Breast Cancer: The Impact of Subcutaneous Dual-Blockade Therapy	鄭涵方醫師 Han-Fang Cheng
	座長:俞志誠 教授 (Jyh-Cherng Yu)	
11:00-11:30	最大優化一線 HER2 陽性轉移性乳癌患者之治療效益 Maximizing and Optimizing the 1st line treatment for patient's benefit in HER2- Positive Metastatic Breast Cancer	廖國秀醫師 Kuo-Hsiu Liao
	座長:戴明燊 醫師 (Ming-Shen Dai)	
11:30-12:00	HR+/HER2- 轉移性乳癌患者最佳的 CDK4/6 抑制劑之跨 族群分析 Optimal CDK4/6 Inhibitor Treatment Options Across Groups in HR+/HER2- Metastatic Breast Cancer Patients	賴峻毅醫師 Jiun-I Lai
12:00-12:10	Closing Remarks	俞志誠教授 Jyh-Cherng Yu

## Evolving role of Trop2 ADCs in mTNBC data review Trop2 ADC 在轉移性三陰性乳癌中的發展與數據回顧

#### Chun-Yu Liu

#### 劉峻宇

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Triple-negative breast cancer (TNBC) is an aggressive and heterogeneous subtype with limited treatment options and poor prognosis, particularly in the metastatic setting (mTNBC). Trophoblast cell-surface antigen 2 (Trop2) is highly expressed in various epithelial cancers, making it an emerging target for antibody-drug conjugate (ADC) therapy. In recent years, Trop2 ADCs have demonstrated significant clinical efficacy in mTNBC, providing new therapeutic options for patients.

This review focuses on the evolving role of Trop2 ADCs in mTNBC, summarizing key clinical trial data, including mechanisms of action, efficacy outcomes such as progression-free survival (PFS) and overall survival (OS), and safety profiles. Sacituzumab govitecan, a leading Trop2 ADC, has shown superior survival benefits over standard chemotherapy in the phase III ASCENT trial and has become a key treatment option. Additionally, novel Trop2 ADCs are under development, exploring optimal strategies such as combination therapies with immune checkpoint inhibitors or PARP inhibitors.

As research advances, Trop2 ADCs are expected to reshape the treatment landscape for mTNBC. However, further studies are required to refine patient selection, mitigate resistance, and determine the most effective treatment combinations.

# The evolving treatment landscape with novel therapeutics in metastatic HR+ BC with Inavolisib

### HR+ 轉移性乳癌治療的最新進展:Inavolisib 的臨床應用前景

#### **Chi-Cheng Huang**

#### 黄其晟

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Metastatic hormone receptor-positive (HR+) breast cancer remains a significant challenge in oncology, particularly due to the development of resistance to endocrine therapies. One of the key drivers of this resistance is the dysregulation of the PI3K/AKT/mTOR pathway, with PIK3CA mutations frequently implicated in disease progression. This has underscored the need for targeted therapeutic approaches that can enhance treatment efficacy and overcome resistance mechanisms.

Inavolisib, a next-generation, selective PI3K $\alpha$  inhibitor, represents a promising advancement in this space. By specifically inhibiting PIK3CA-mutated tumors, inavolisib has shown the potential to enhance the effectiveness of endocrine therapy while mitigating the toxicities commonly associated with broader PI3K inhibition. Early clinical studies indicate that combining inavolisib with standard hormonal treatments, such as fulvestrant or aromatase inhibitors, and CDK4/6 inhibitor, can significantly improve progression-free survival (PFS), offering a novel strategy to extend disease control in patients with metastatic HR+ breast cancer.

Beyond its efficacy, inavolisib's oral formulation provides a convenient treatment option for patients requiring long-term disease management. Furthermore, ongoing research is exploring its integration with other targeted agents, such as CDK4/6 inhibitors, to further optimize outcomes.

As the treatment paradigm for metastatic HR+ breast cancer continues to evolve, inavolisib exemplifies the potential of precision medicine to tailor therapies to specific molecular alterations. With promising clinical benefits and a favorable safety profile, inavolisib is emerging as a key player in the expanding landscape of targeted treatments, providing new hope for patients facing this challenging disease.

## Personalized care in early HER2+ breast cancer: Advancing patientcentered solutions

## 早期 HER2+ 乳癌的個人化治療: 推動以病人為中心的解決方案

#### Yen-Jen Chen

#### 陳彥蓁

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HER2-positive (HER2+) breast cancer is a biologically aggressive subtype, but the advent of anti-HER2 targeted therapies has significantly improved outcomes, transforming it into a highly treatable disease. The introduction of trastuzumab revolutionized treatment, and subsequent developments, including pertuzumab and trastuzumab emtansine (T-DM1), have further refined patient-centered approaches.

Dual HER2 blockade with trastuzumab and pertuzumab is now a key strategy in high-risk early-stage disease, particularly in the neoadjuvant setting, where it enhances pathological complete response (pCR) rates and improves long-term survival. For patients with residual disease after neoadjuvant therapy, T-DM1 provides an essential escalation strategy, reducing recurrence risk and improving disease-free survival. Personalized treatment selection, balancing efficacy with toxicity, remains crucial to optimizing patient outcomes. This presentation will explore the rationale for anti-HER2 strategies, the role of dual blockade, and the impact of T-DM1 in early-stage HER2+ breast cancer, emphasizing the evolution toward more tailored, patient-centric care.

# Enhancing health-related quality of life in HER2-positive breast cancer: The impact of subcutaneous dual-blockade therapy

## 優化 HER2 陽性早期乳癌病患之健康及生活品質

#### Han-Fang Cheng

#### 鄭涵方

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Breast cancer is a leading malignancy among women globally, with HER2-positive breast cancers being particularly aggressive. Although HER2-targeted therapies have markedly improved survival outcomes, assessing their impact on patients' health-related quality of life(HRQoL) remains essential for comprehensive care.

This review examines HRQoL outcomes associated with dual-blockade therapies, including Trastuzumab plus Pertuzumab (PH) compared to Trastuzumab monotherapy (H), Trastuzumab emtansine (T-DM1) versus Trastuzumab deruxtecan (T-DXd), and contrasts subcutaneous (SC) with intravenous (IV) administration routes.

Current evidence emphasizes the importance of considering HRQoL alongside clinical efficacy, advocating for treatment modalities that offer both survival benefits and meaningful improvements in patient well-being. Future research should further integrate HRQoL measures to ensure continued advancement in holistic treatment approaches for HER2-positive breast cancer.

## Maximizing and optimizing the 1<sup>st</sup> line treatment for patient's benefit in HER2-positive metastatic breast cancer

## 最大優化一線 HER2 陽性轉移性乳癌患者之治療效益

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HER2-positive metastatic breast cancer (mBC) represents a subset of breast cancer with distinct biological characteristics and clinical behaviors. The advent of targeted therapies has revolutionized the management of this disease. Recent advancements have underscored the importance of integrating personalized medicine approaches, focusing on individual patient characteristics, tumor biology, and genetic profiling. Understanding the heterogeneity within HER2-positive mBC is crucial for tailoring treatments that offer the highest efficacy and least toxicity.

**Targeted Therapy Integration:** Emphasizing the role of monoclonal antibodies like trastuzumab and pertuzumab, combined with chemotherapy, as the cornerstone of 1st line treatment for HER2-positive mBC.

**Biomarker-Driven Treatment:** Discussing the significance of biomarkers in predicting response and guiding therapy adjustments, including the utilization of next-generation sequencing and liquid biopsies.

**Combination Strategies:** Evaluating the potential of combining HER2-targeted therapies with other modalities, such as hormonal therapy and immunotherapy, to enhance therapeutic outcomes.

**Minimizing Toxicity:** Strategies to manage and mitigate adverse effects, thus improving the quality of life for patients undergoing treatment.

**Clinical Trials and Emerging Therapies:** Highlighting the importance of ongoing clinical trials and exploring novel agents that show promise in further improving patient outcomes.

Ultimately, the goal is to provide a holistic approach in treating HER2-positive mBC patients, ensuring that each individual receives a tailored treatment plan that maximizes therapeutic benefits while minimizing potential harms.

## **Optimal CDK4/6 Inhibitor treatment options across groups in HR+/ HER2- Metastatic Breast Cancer patients**

### HR+/HER2- 轉移性乳癌患者最佳的 CDK4/6 抑制劑之跨族群分析

#### Jiun-I Lai

#### 賴峻毅

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The use of CDK4/6 inhibitors (CDK4/6i) has emerged as a treatment for hormone receptor-positive, HER2-negative metastatic breast cancer (HR+/HER2- mBC) across diverse patient populations. This presentation aims to explore optimal CDK4/6 inhibitor therapy strategies tailored to HR+/HER2- metastatic breast cancer patients, spanning a wide range of ages, from younger to older individuals.

The phase III MONALEESA-7 trial demonstrated that ribociclib combined with endocrine therapy and ovarian function suppression can provide both progression-free survival and overall survival benefits, improving the quality of life in premenopausal or perimenopausal patients with HR+/HER2- mBC.

Additionally, the RIGHT Choice study demonstrated that ribociclib combined with aromatase inhibitors and ovarian function suppression provides a significant progression-free survival benefit, comparable response rates, and superior tolerability compared to combination chemotherapy in young patients with clinically aggressive HR+/HER2– mBC. These positive outcomes highlight ribociclib plus endocrine therapy and OFS as viable options, offering improved disease control and enhanced quality of life for patients who previously faced the dual burden of disease and treatment-related side effects.

Lastly, this presentation will address the toxicity profile of ribociclib, with a primary focus on liver toxicity and QTc prolongation. Additionally, a pooled analysis of ribociclib's safety and efficacy in the elderly population will be discussed in this section.

This presentation underscores that HR+/HER2- mBC patients, regardless of age, can derive significant benefit from CDK4/6i therapy. The ultimate objective is to bridge the gap between clinical trial outcomes and real-world application, ensuring these therapeutic advantages are effectively translated into routine clinical practice.