

**Cite this as:** Ming ZHAO, Xian-feng DING, Jian-yu SHEN, Xi-ping ZHANG, Xiao-wen DING, 2017. Use of Liposomal Doxorubicin for Adjuvant Chemotherapy of Breast Cancer in Clinical Practice. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, 18(1):15-26.  
<http://dx.doi.org/10.1631/jzus.B1600303>

# **Use of liposomal doxorubicin for adjuvant chemotherapy of breast cancer in clinical practice**

**Key words:** Liposomal doxorubicin, Breast cancer, Adjuvant chemotherapy, Therapeutic effect, Toxic and side effects

# ***Research Summary***

**This article reviews the clinical application of liposomal doxorubicin in the adjuvant chemotherapy of breast cancer and illustrates therapeutic effects and side effects of PLD and NPLD in clinical research, in order to discuss the strategies for applying these drugs in such adjuvant chemotherapy.**

Dosage	Time	Periodicity	Drug Combination	Entity/ Pathology	Reference
30mg/m <sup>2</sup>	3 weeks	6	<u>Gemcitabine+Paclitaxel</u>	Locally advanced	<u>Artioli, G., et al</u> 2010
35mg/m <sup>2</sup>	3 weeks	6	<u>Paclitaxel</u>	Locally advanced	<u>Gogas, H., et al</u> 2002
mg/m <sup>2</sup>	2 weeks	8	<u>Paclitaxel</u>	Locally advanced	<u>Rossi, D., et al</u> , 2008
35mg/m <sup>2</sup>	3 weeks	6	<u>Cyclophosphamide+Trastuzumab+Paclitaxel</u>	Locally advanced/HER-2 positive	<u>Tuxen, MK, et al</u> , 2014
20mg/m <sup>2</sup>	2 weeks	6	<u>Cyclophosphamide</u>	Locally advanced	<u>Dellapasqua, S., et al</u> 2011
25mg/m <sup>2</sup>	3 weeks	8	<u>Cisplatin+Fluorouracil</u>	Locally advanced/HER-2 negative	<u>Tomisi, R., et al</u> , 2011
40mg/m <sup>2</sup>	3 weeks	6	<u>Cyclophosphamide+Fluorouracil</u>	Metastatic	<u>Rau KM., et al</u> , 2015
40mg/m <sup>2</sup>	4 weeks	6	<u>Lapatinib+Trastuzumab</u>	Metastatic/HER-2 positive	<u>Pircher, M., et al</u> , 2015
30mg/m <sup>2</sup>	3 weeks	6-8	<u>Docetaxel</u>	Metastatic	<u>Sparano, JA., et al</u> 2009
20mg/m <sup>2</sup>	2 weeks	8	--	Locally advanced and Metastatic	<u>Basso, U., et al</u> 2013
40mg/m <sup>2</sup>	4 weeks	6	<u>Vinorelbine</u>	Metastatic	<u>Addeo, R., et al</u> 2008
45mg/m <sup>2</sup>	4 weeks	6	<u>Capecitabine</u>	Metastatic/HER-2 negative	<u>Smorenburg, CH., et al</u> 2014

**Table 1 Chemotherapy cycles and combination drugs related to PLD**

Dosage	Time	Periodicity	Drug Combination	Entity/ Pathology	Reference
50mg/m <sup>2</sup>	3weeks	6	<u>Trastuzumab+Paclitaxel</u>	Metastatic/HER-2 positive	<u>Antón, A., et al</u> 2011
60mg/m <sup>2</sup>	3weeks	6	<u>Trastuzumab+Paclitaxel</u>	Metastatic/HER-2 positive	<u>Saracchini, S., et al</u> 2013
50mg/m <sup>2</sup>	3weeks	6	<u>Trastuzumab+Paclitaxel</u>	Metastatic/HER-2 positive	<u>Gavilá, J., et al</u> 2015
50mg/m <sup>2</sup>	3weeks	6	<u>Trastuzumab+Paclitaxel</u>	Metastatic/HER-2 positive	<u>Baselga, J., et al</u> 2014
60mg/m <sup>2</sup>	3weeks	6	<u>Cyclophosphamide+Paclitaxel</u>	Metastatic/HER-2 negative	<u>Vici, P., et al</u> , 2014
50-60mg/m <sup>2</sup>	3weeks	6	<u>Gemcitabine+Paclitaxel</u>	Locally advanced	<u>Schmid, P., et al</u> 2005
60mg/m <sup>2</sup>	3weeks	6	<u>Gemcitabine+Paclitaxel</u>	Early stage	<u>Schmid, P., et al</u> , 2005

**Table 2 Chemotherapy cycles and combination drugs related to NPLD**

# **Strategies for applying PLD/NPLD in adjuvant chemotherapy of breast cancer.**

- **Research and Application Based on HER-2 Gene Level**
- **Optimization of Combined Regime**
- **Rationalization of Dosage and Cycle**
- **Molecular Index and Prognosis**
- **Statistical Analysis Based on a Large Number of Samples**