

中文題目：乳癌併肝轉移患者，併用 Ribociclib 與 statin 造成的急性橫紋肌溶解-案例報告

英文題目：Acute rhabdomyolysis induced by co-administration of ribociclib and statin in a patient of metastatic breast cancer - a case report

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**Introduction:** Ribociclib is a cyclin dependent kinases 4/6 (CDK 4/6) inhibitor. We report a case of metastatic breast cancer of luminal A type (HR+/ HER2-), who was treated with Ribociclib and letrozole (aromatase inhibitor). Ribociclib and aromatase inhibitor combination can increase progression free survival in hormonal positive metastatic breast cancer patient. There are some side effect while using Ribociclib, such as neutropenia, prolong QTc interval, impaired liver function, fatigue, nausea, vomiting, diarrhea, hair loss. But in our case, she experienced a life threaten adverse event of acute rhabdomyolysis in her early use of cdk 4/6, which should be kept in mind while use this type of medication.

**Case presentation:** A 70-year-old female with dyslipidemia under Fluvastatin treatment, was diagnosed as right breast cancer, stage IA, pT1aN0M0, grade 2, ER+ 70%, PR+ 70%, HER2 -, Ki-67: 20%, on 2015 Oct., status post modified radical mastectomy(MRM) on 2015. She received tamoxifen treatment since 2015 Oct. However, she had breast cancer with liver metastases, stage IV, pTxN0M1, GATA3 (+) noted on 2020 June. She started to receive Letrozole since 2020/06/19 and Ribociclib since 2020/07/03. However, she was easily palpitation and general weakness, so Ribociclib was hold since 2020/07/17. Nevertheless, she still had general malaise, tea color urine, liver function deterioration(GOT=99 IU/L, GPT=49 IU/L), so Letrozole was also hold since 2020/07/31. On 2020/08/12, she suffered from fever with chillness, shortness of breath, dry cough, urinary frequency, general weakness cannot stand up, general muscle weakness without focal neurologic signs; and she was diagnosed as urinary tract infection, acute rhabdomyolysis induced by drug interaction of Fluvastatin and Ribociclib (GOT=686 IU/L, GPT=575 IU/L, CPK=4676 IU/L, myoglobin=2784 ng/mL). The NCV and EMG study showed inflammatory myopathy, myositis.

**Discussion:** There are few case reports about statin induced rhabdomyolysis by interaction with CDK 4/6 inhibitors. Approximately 60% of cases of statin-induced rhabdomyolysis are due to co-administration of a CYP3A4 inhibitor. Ribociclib is a time-dependent inhibitor of CYP3A4 and is a weak inhibitor. Ribociclib might increase statin concentration by CYP3A4 inhibition, eventually resulting statin-induced rhabdomyolysis. Therefore, we should be careful about prescribing CDK 4/6 inhibitors with statin.

## Reference:

1. Nelson KL, Stenehjem D, Driscoll M and Gilcrease GW (2017) Fatal Statin-Induced Rhabdomyolysis by Possible Interaction with Palbociclib. *Front. Oncol.* 7:150. doi: 10.3389/fonc.2017.00150