INTRODUCTION

Intravenous (IV) paclitaxel is an effective treatment for breast cancer. Oral administration of paclitaxel is preferable to IV regarding minimizing IV injections, anaphylactic reactions to cremophor, steroid premedications, hospital visits, and relevant costs. However, paclitaxel has poor oral absorption due to active excretion by P-glycoprotein (Pgp) in the intestinal cells. Oraxol (Athenex, USA) is an oral paclitaxel and HM30181, a novel oral inhibitor of intestinal P-gp which enables the oral administration of paclitaxel. We report the final results of a pharmacokinetics (PK) study, including clinical response and tolerability of Oraxol in treatment of metastatic breast cancer patients.

MATERIALS AND METHODS

Multicenter, single-arm, open-label, PK study of Oraxol (HM30181A at 15mg, plus oral paclitaxel 205mg/m2) administered orally for 3 consecutive days weekly for up to 16 weeks. Paclitaxel PK was assessed at week-1 and week-4. Tumor Response was measured at weeks 8 and 16 using RECIST criteria 1.1. Toxicity was assessed using CTCAE v4.03.

RESULTS

Twenty-eight MBC patient were studied with a mean age of 56.6 years (range: 38 - 79 yrs). 26 patients had failed multiple previous chemotherapies. There were 11 (42.3%) partial response, 12 (46.2%) stable disease and 3 (11.5%) progressive disease in 26 evaluable patients. Three patients had treatment-related SAEs (grade ≥3 neutropenia) and all patients recovered completely. PK results showed that the AUC of oral paclitaxel at week-1 was reproducible at week-4 (3050 to 3594 ng-hr/mL).

CONCLUSION

1. Weekly oral paclitaxel can achieve paclitaxel exposure similar to that of weekly IV paclitaxel (80mg/m2) reported previously. PK of oral paclitaxel is reproducible.
2. Oraxol appears effective in the treatment of advanced breast cancer patients. The tumor response rate (PR≥ 42.3%, SD= 46.2%) of Oraxol in treatment of metastatic breast cancer patients who failed previous chemotherapies is very encouraging.
3. The drug toxicity profile of Oraxol appears tolerable.