INTRODUCTION: To summarize clinical application result of the thoracodorsal artery perforator pedicled or free flap for repair of soft tissue defects on the upper limb.

PATIENTS AND METHODS: From January 2000 to January 2010, 20 patients (10 males and 10 females) with soft tissue defects on the upper limb underwent reconstruction with the free or pedicled thoracodorsal artery perforator flap. The age of patients was from 30 to 50 years-old with an average of 32 years. Of them, the recipient sites of 10 cases were located on the arm region, 5 cases on the forearm and 5 cases on the hand.

RESULTS: All the flaps had survived completely and the postoperative course was uneventful with satisfactory clinical results. Follow-up period ranged for 12-48 months after operation . All donor sites were closed primarily. There was no remarkable donor site morbidity.

CONCLUSIONS: The thoracodorsal artery perforator flap is thin and suitable and it results in minimal functional deficit of the donor site, low rate of flap complication and aesthetically acceptable scar. Cause of these advantages, pedicled or free thoracodorsal artery perforator flap is an excellent choice for repair of soft tissue defect on the upper limb.