



Hiroaki Yamagami and Yukiyo Shiomi

34.1 Shoulder and Upper Extremity

The ultrasound-guided method is becoming a widely adopted technique to inject drug solutions into the joints of the shoulders, upper extremities, and other parts. In addition, pre-scanning provides images of the intraarticular anatomy of

the shoulder and upper extremity joints and facilitates diagnosis. Direct injection of drug solutions into the injured sites identified through pre-scanning immediately results in analgesia, which leads to an improved range of motion.

H. Yamagami (✉)
Yamato Pain Clinic, Osaka, Japan
e-mail: hy249@ybb.ne.jp

Y. Shiomi
Anesthesiology Pain Clinic of Jinsenkai Hospital, Osaka, Japan