Electroanatomic mapping system guided His Bundle Pacemaker Implantation: Experience of a high volume center Rohrer U., Prenner G., Sereinigg M., Manninger M., Geczy T., Bisping E., Lercher P., Zirlik A., Scherr D.

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Background

His bundle pacing allows to overcome the common issue of pacing-induced heart failure with a more physiological approach.

Methods

We report a single centre experience of the first 23 consecutive patients being implanted with a His-bundlebased cardiac implantable electronic device (CIED). The positioning of the His-bundle-lead was done via an electroanatomic mapping system with an introducing sheath that is provided with electrodes at its tip.



Figure 1: Leads in right atrium (RA), coronary sinus (CS), his bundle position (his)

Results

I) Baseline characteristics

Female patients

Age

LVEF

QRS width

II) Implantation

Primary success rate

Skin-to skin procedure time

Paced QRS

Complications

Primary success rate

Skin-to skin procedure time

paced QRS

23 patients

5/23 (22%)

72±14 years

43±15%

126±31ms

23 patients

100%

97 (50-147) min

120ms (60;196ms)

1/23 (pneumothorax)

100%

97 (50-147) min

120ms (60;196ms)

(170ms)

Conclusion

Electroanatomic-guided His bundle pacing is feasible, with high implantation success rate and electric impact, both regarding QRS width and pacing threshold.

No conflicts of interest



Figure 2: From intrinsic LBB to HOT CRT pacing