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- ✓ A systematic evaluation of standardized data sets can help to optimize framework conditions for TACE in future
- ✓ A variety of factors including specific post-interventional complications, the type of embolization method used as well as the hospital's annual case volume are associated with an increased in-hospital following TACE



Current trends and in-hospital mortality of transarterial chemoembolization (TACE) in Germany between 2010 and 2019



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1 Introduction

- The minimally invasive procedure of TACE represents a standard oncologic procedure for the treatment of intermediate-stage hepatocellular carcinoma (HCC), cholangiocarcinoma (CCC), and liver metastases.
- Although a number of risk factors associated with post-interventional complications and increased mortality are described in the literature, comprehensive data on current trends and in-hospital mortality following TACE are largely lacking.

2 Aim

This study aims at providing a systematic overview on TACE indications and embolization methods and to identify factors associated with an increased in-hospital mortality following TACE in order to further improve outcomes.

3 Methods

Based on standardized hospital discharge data provided by the German Federal Statistical Office, we systematically evaluate current clinical developments, post-interventional complications, and in-hospital mortality following TACE in Germany between 2010 and 2019.

5 Conclusions

- We identify a variety of factors such as post-interventional complications, the type of embolization method used as well as the hospital's annual case volume, which are associated with an increased in-hospital following TACE.
- These data might help to further reduce mortality of this routinely performed local-ablative procedure in future.

6 Acknowledgements

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7 References

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 Krieg S et al. Recent Trends and In-Hospital Mortality of Transarterial Chemoembolization (TACE) in Germany: A Systematic Analysis of Hospital Discharge Data between 2010 and 2019. *Cancers (Basel)*. 2022 Apr 22

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4 Results

1. 49,595 individual cases undergoing TACE were identified in Germany between 2010 and 2019 (Fig. 1/2).

Fig. 1: Annual TACE cases and indication for TACE

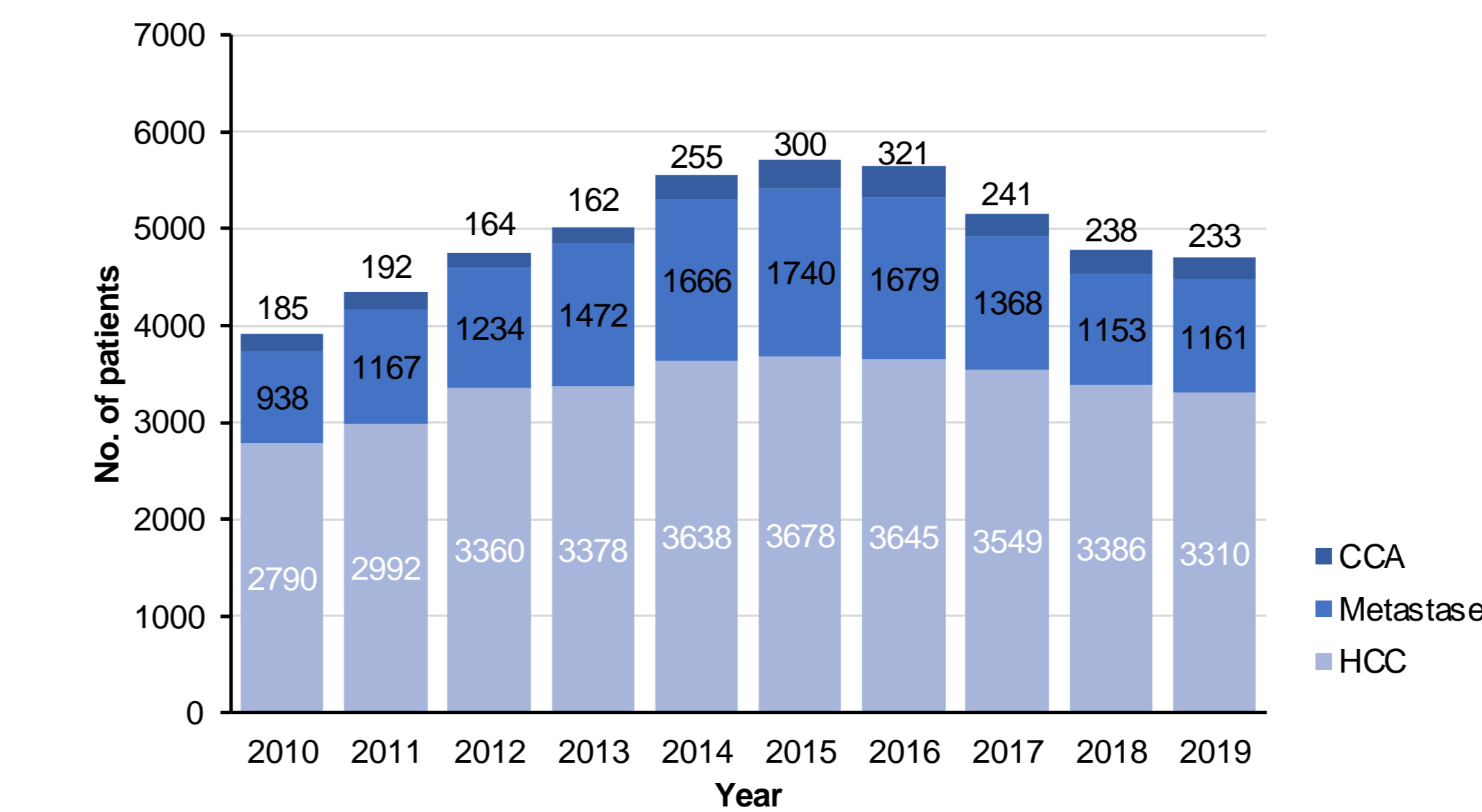
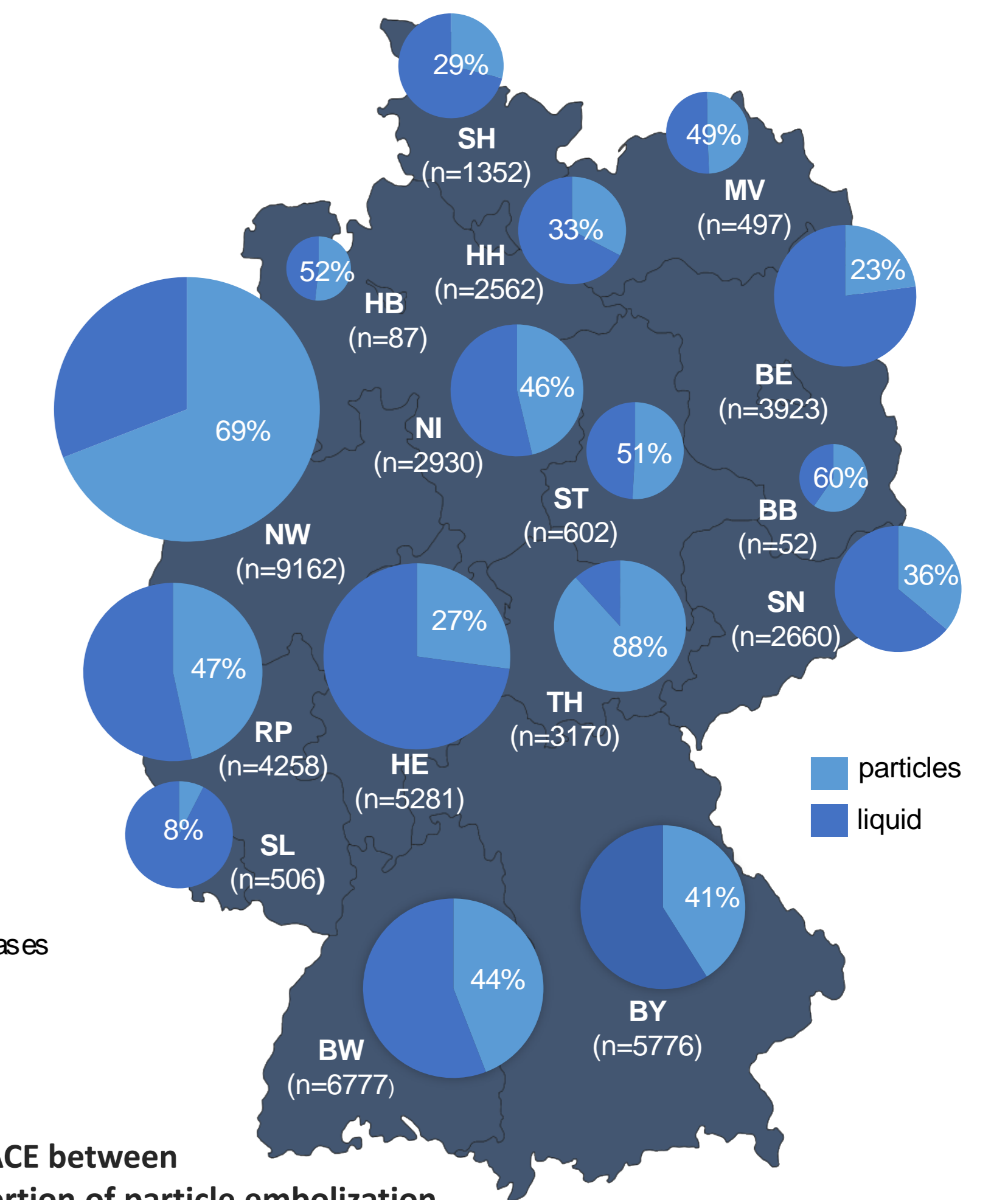


Fig. 2: Total number of TACE between 2010 and 2019 and proportion of particle embolization



2. Overall in-hospital mortality was 1% and significantly higher in females compared to males (Fig. 3). In-hospital mortality significantly differed between the underlying indications for TACE (Fig. 4) as well as between different embolization agents (Fig. 5).

Fig. 3: Sex-specific hospital mortality

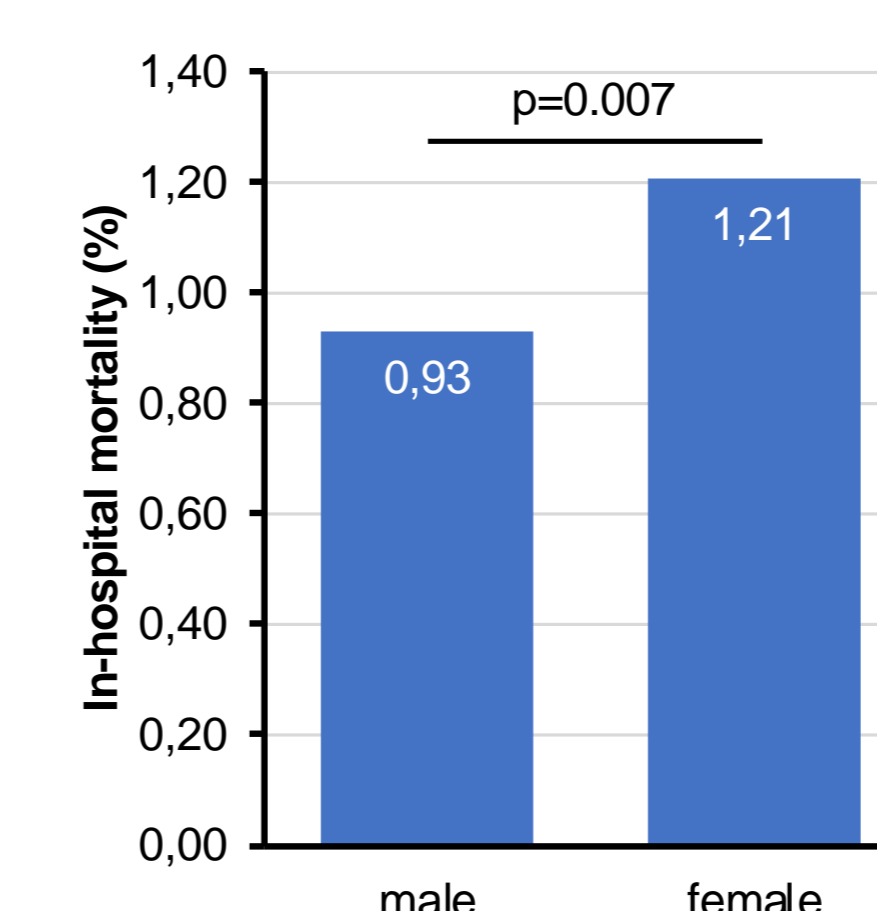


Fig. 4: Disease-related in-hospital mortality

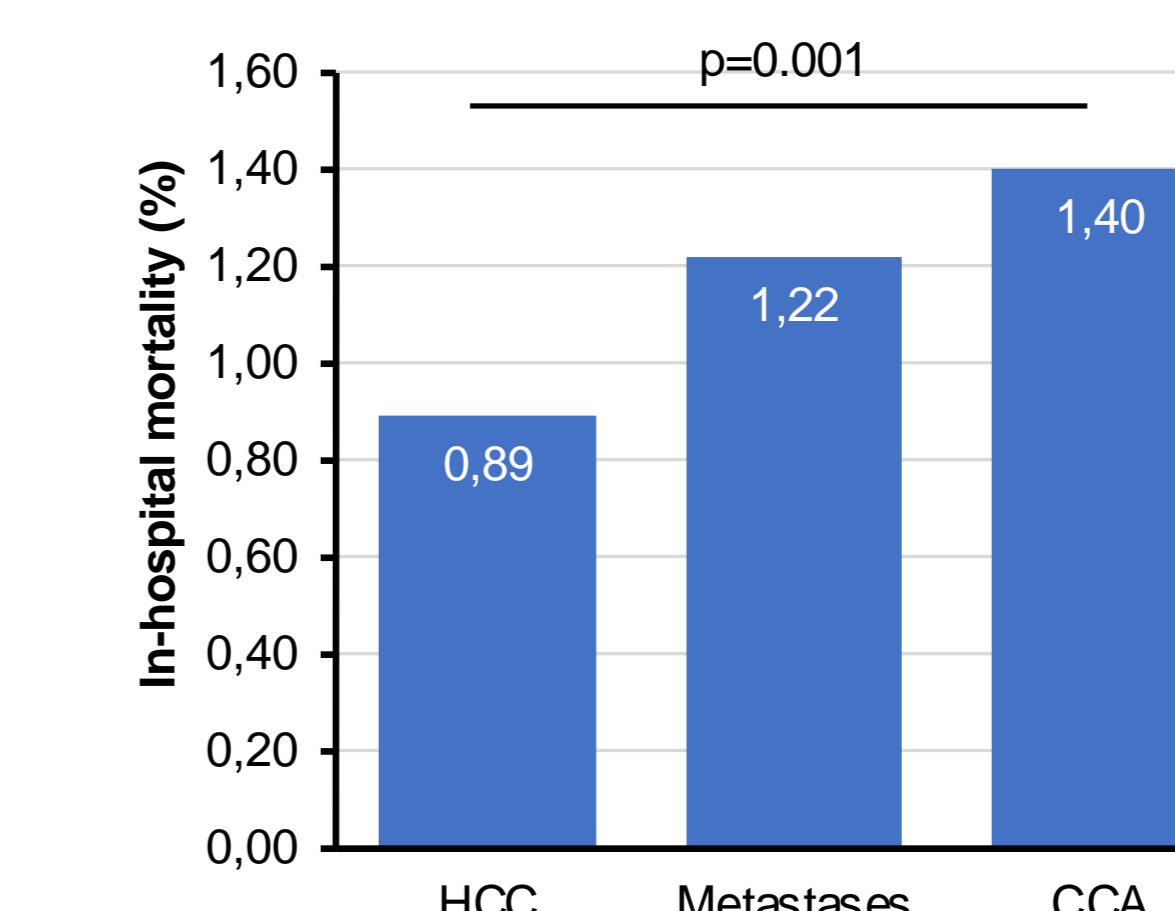
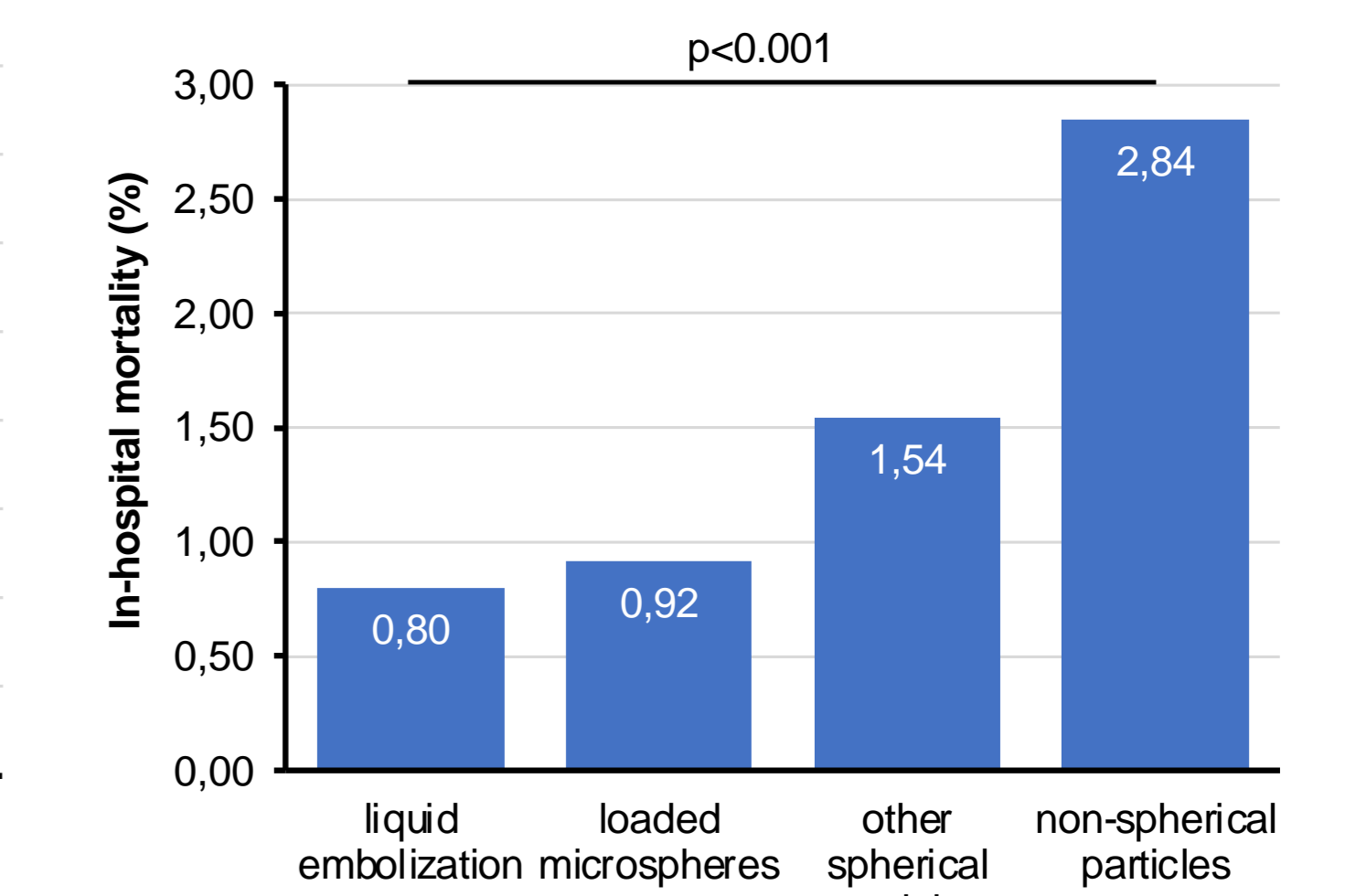


Fig. 5: In-hospital mortality and embolization agents



3. Post-interventional complications such as liver failure, sepsis, renal failure, and liver abscess were associated with a significantly increased in-hospital mortality (Fig. 6).

4. In-hospital mortality was significantly increased in centers with a low annual TACE case volume (Fig. 7).

Fig. 6: Impact of post-interventional complications following TACE on in-hospital mortality

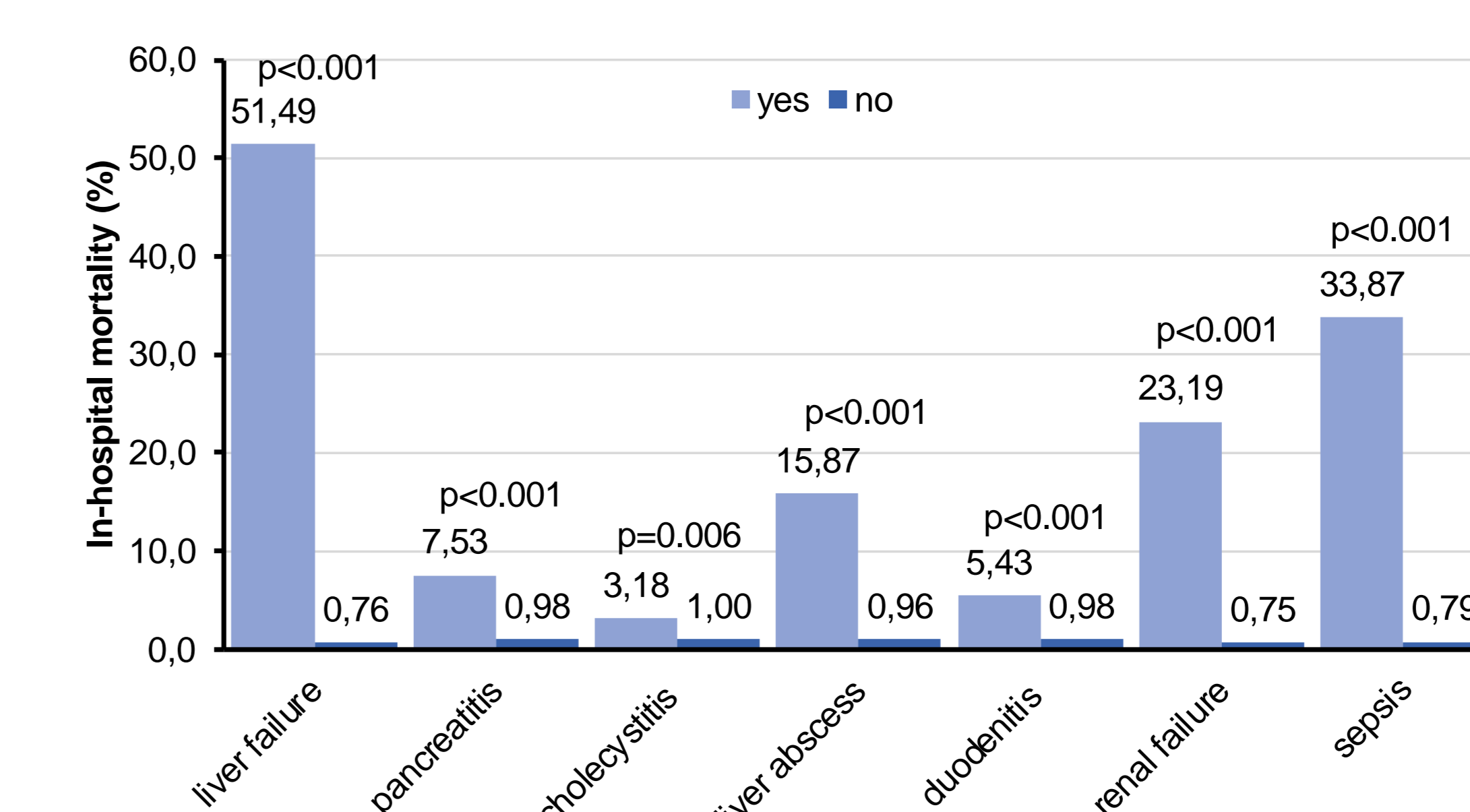


Fig. 7: Annual hospitals' case volume and in-hospital mortality

