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## INTRODUCTION

Antibiotic resistance can be spread through food and is a growing global health threat. In terms of antibiotic resistance, carbapenem resistance is emphasized by World Health Organization. Carbapenems, which are used in the treatment of bacteria producing extended-spectrum beta-lactamase, are used before last resort antibiotics in the treatment of many diseases (1). There are many microorganisms in fish skin microbiota and resistance to various antibiotics used for therapeutic purposes develops. Resistant bacteria can cause fish infections and infect people who are consumers (2). Sea bass has an important place in fish consumption compared to many fish species. The Aegean Sea is one of the important points of sea bass (*Dicentrarchus labrax*) consumption and microbiota and antibiotic resistance profile studies on sea bass are limited (3). The aim of this study was to investigate the bacterial skin microbiota of sea bass from the Aegean Sea and to investigate the antibiotic resistance profile of the dominant specie. This is the first study on sea bass bacterial skin microbiota by NGS method in Türkiye.

## METHOD

- Next-Generation Sequence for detection of bacterial skin microbiota
- Metabarcoding
- *Pseudomonas* spp. isolation and identification by TS EN ISO 13720
- Antibiotic susceptibility test through disk diffusion method
- Minimum Inhibitory Concentration (M.I.C) test through E-test
- The results were evaluated according to CLSI (2021) and EUCAST (2022) guidelines.

## RESULTS

- *Pseudomonas* spp. were found in all samples (96/96, 100%).
- *Pseudomonas* spp. could be cultured in 46 (48%) samples.
- The highest antibiotic resistance was detected against doripenem (28.3%) by disc diffusion method.
- Resistance to carbapenem group antibiotics was higher than other antibiotic groups.
- M.I.C test revealed resistance to doripenem in 3 (6.25%) strains and imipenem in 2 (4.1%) strains.

Number of resistance strain by disc diffusion

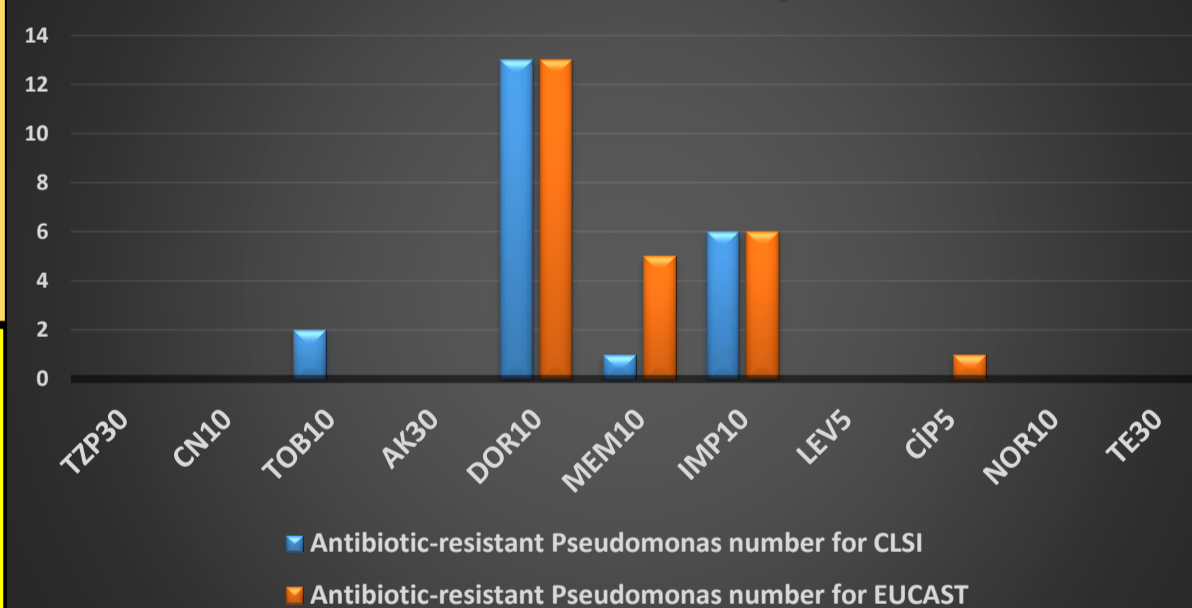


Figure 1. Antibiotic resistance number by disc diffusion method

## Conclusion

Antibiotic resistance is increasing with the unconscious and continuous use of antibiotics. The presence of carbapenem-resistant *Pseudomonas* strains in sea bass is a public health threat.

## References

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