

Effect of addition of salt on oxidant activity and apoptosis of *Coilia nasus* juveniles under air exposure stress

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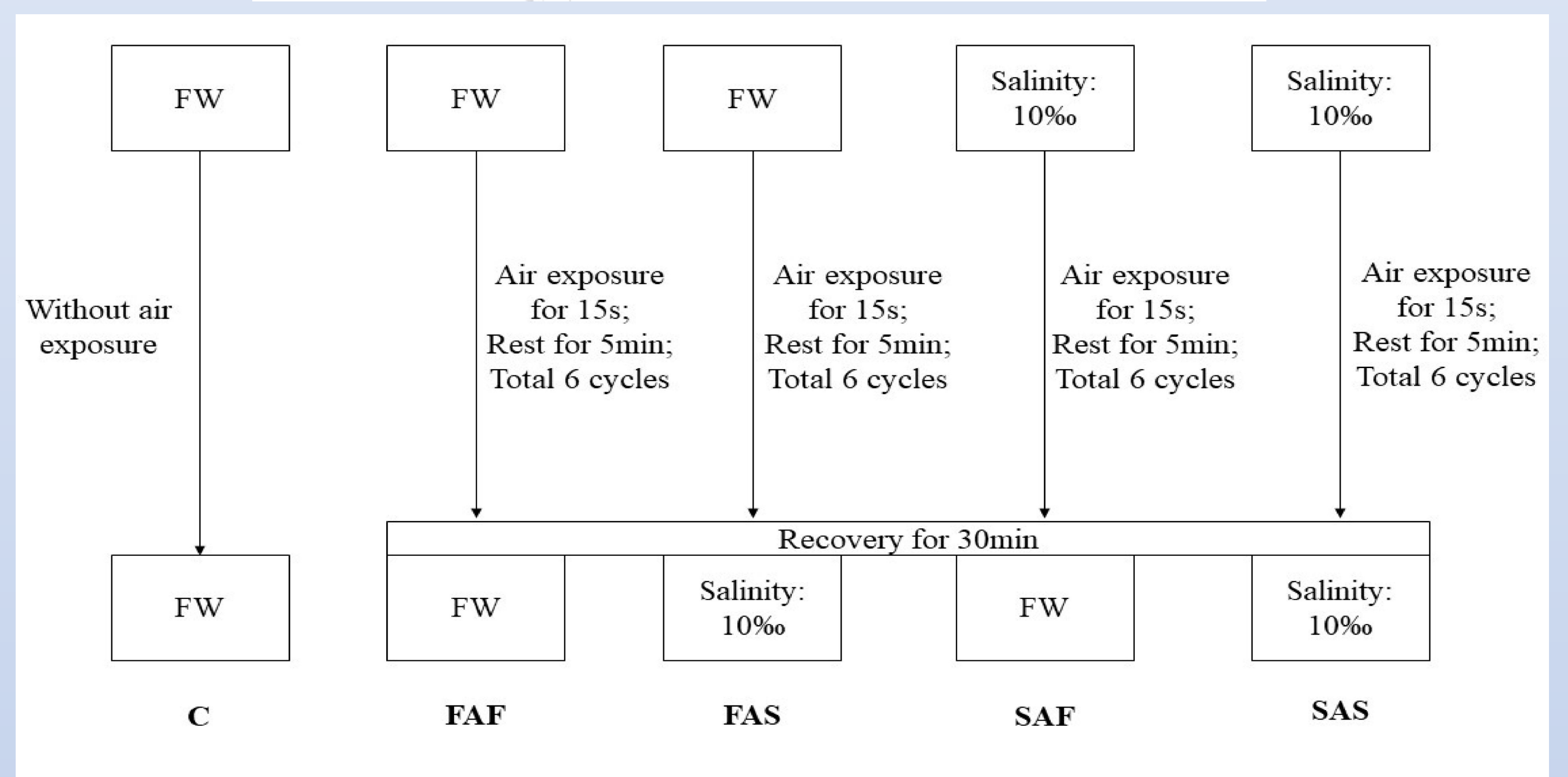
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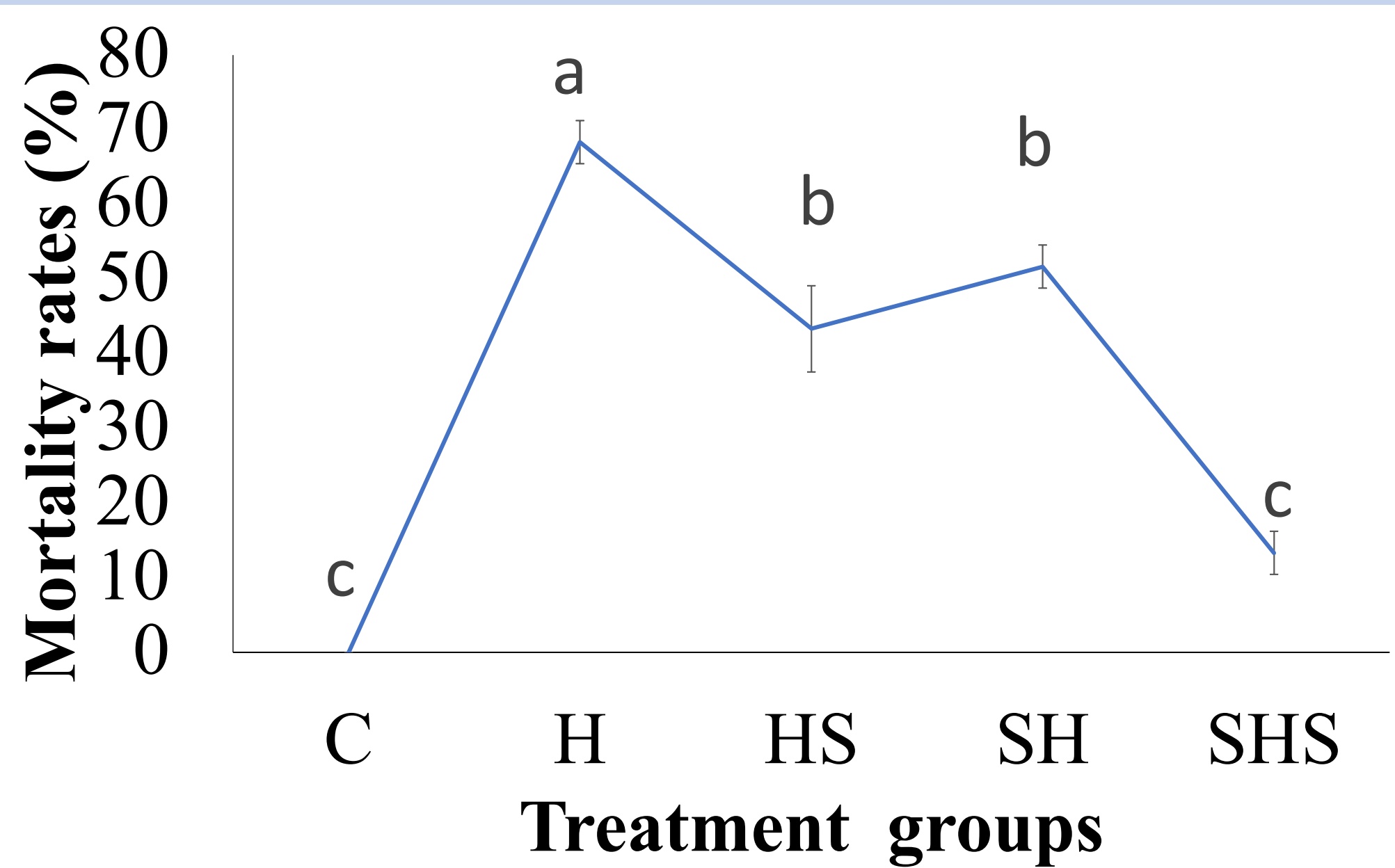
Background

- ◆ Air exposure is an unavoidable and extreme stress factor for most fish.
- ◆ The previous study of *C. nasus* showed that stress caused oxidant stress and apoptosis, which led to high mortality
- ◆ Addition of salt to the aquatic environment is a common practice for freshwater fish to mitigate stress.

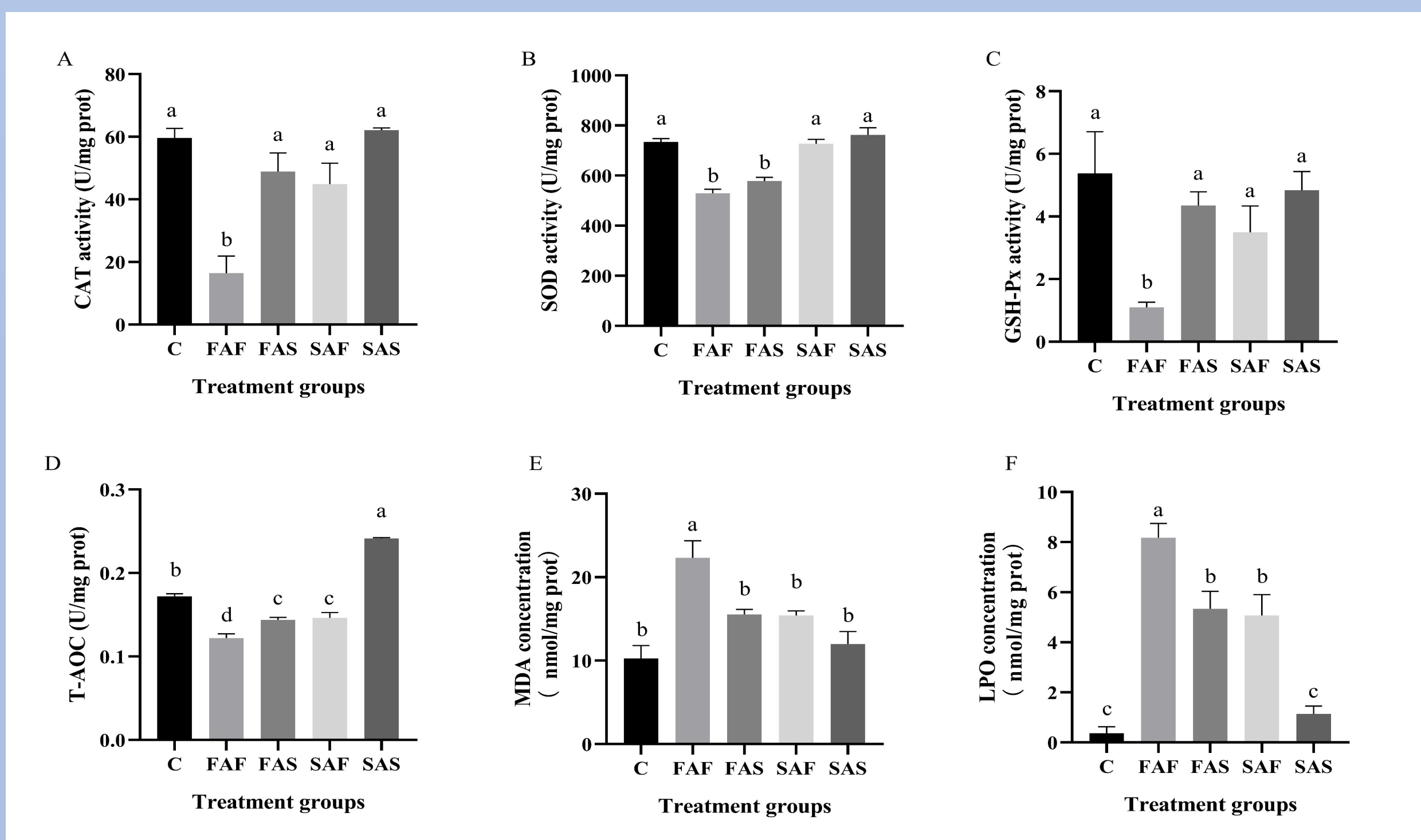
Experiment



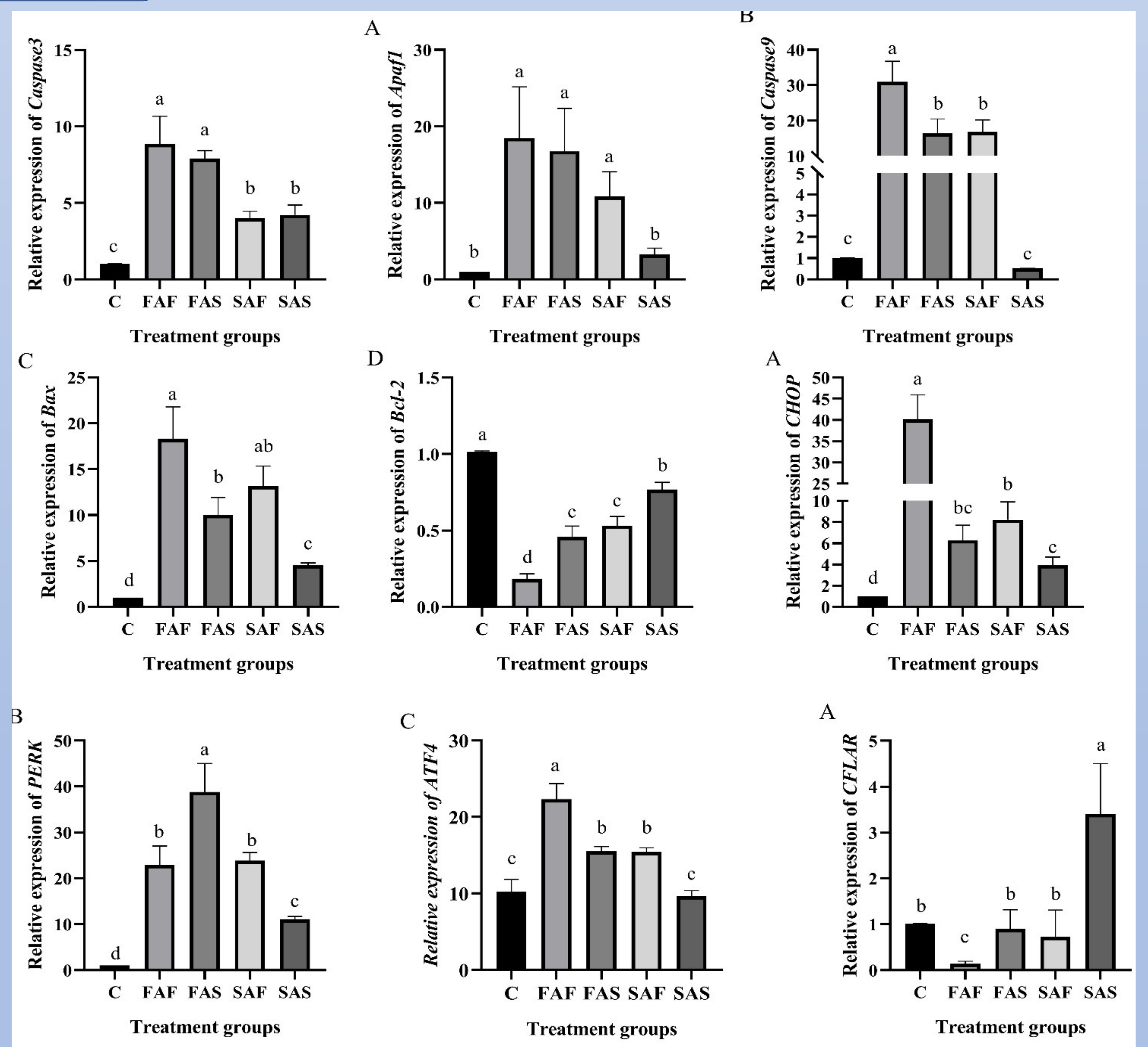
Results



Mortality rates of *Coilia nasus* juveniles under different treatments



Oxidant stress in *C. nasus* juveniles.



Expression of genes related to apoptosis in *C. nasus* juveniles.

Conclusions

- Air exposure triggered high mortality, inhibited antioxidant activities, and activated oxidant stress and apoptosis.
- Adding salt before and after air exposure significantly reduced the mortality.
- Adding salt before and after air exposure significantly inhibited oxidant stress and apoptosis.