Objective  Saccule predilation has been an essential device during percutaneous coronary intervention (PCI). We evaluate the ischaemic preconditioning effect of repeated myocardial ischaemia during predilations.

Methods  Thirty one patients who were ready to undergoing PCI were randomly selected. And we chose the new biochemical indicator ischaemia modified albumin (IMA) as a sensitive index, and the IMA were detected with ACB (albumin cobalt binding) test before saccule dilations, after dilations and after stent implantation. To analyse the data, we used Paired-Sample T test in the SPSS statistics software to investigate the change of the IMA level, and if the change had statistical significance.

Results  The data was signed by means of (mean±SD), the IMA level were (77.03±13.82) U/ml, (90.06±23.58) U/ml and (82.43±21.87) U/ml before saccule predilation, after predilations and after stent implantation. We found the IMA level was lower after stent implantation than that after saccule predilations, and the variance had statistical significance (p=0.031,<0.05). We also found that the IMA level after intervention was equal with that before dilations (p>0.05).

Conclusion  The degree of myocardial ischaemia was relieved during saccule predilations, even can neutralise the ischaemic effect that dilations causing. We can suppose the intrinsic mechanism which we called ischaemic preconditioning effect that protected the myocardium.