Best Posters – 1st Prize:

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ABSTRACT TITLE:
Ligand-activated transcription factors PPAR-gamma and PPAR-alpha expression in human glioma
ABSTRACT TEXT:
Objective: Agonists of the ligand-activated transcription factors PPARɔ and PPARŬ are in routine clinical use for Type 2 diabetes and lipid control. In vitro studies suggest that PPARɔ and PPARŬ exert antiproliferative and anti-invasive effects on gliomas. PPAR may therefore have a role as a diagnostic and prognostic biomarker or drug target in human gliomas.
Method: 52 glioma samples diagnosed 2011-2013 banked at the Brain Tumour Bank Southwest UK were analysed for PPARɔ and PPARŬ expression using dot and western blot techniques. mRNA expression was quantified using rt-PCR. The expression of PPARɔ and PPARŬ was compared with survival data and stratified by WHO tumour grade.
Results: In our study PPARɔ and PPARŬ protein expression differs with WHO glioma grade. WHO grade III gliomas show a higher expression of both PPARɔ and PPARŬ when compared with WHO grade IV gliomas.
Conclusion: Our results show for the first time that both PPARɔ and PPARŬ protein expression is significantly increased in WHO grade III gliomas compared to WHO grade IV gliomas. PPARɔ and PPARŬ agonists are in current clinical use and future trials stratified by PPARɔ and PPARŬ expression may reveal a patient cohort with optimum clinical response to these agents.