SR-B1 and PGRMC1 Expression in Canine Uterine Macrophages

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Image Article

In a previous study [1] the scavenger receptor SR-B1 was identified to be upregulated in the progesterone responsive metestrous and pyometra affected canine uterus. In a follow-up study SR-B1+ expression was identified in IBA1+/MAC387- stromal cells, which were therefore characterized as macrophages (Figures A-E). A comparable cell population was identified between myometrial smooth muscle bundles (Figures F-I). These SR-B1+/IBA1+ cells were positive for PGRMC1 (Figure H). Dressing et al. [2] summarized data suggesting that progesterone acts upon immune cells via non-genomic pathways rather than nuclear progesterone receptors, but data are inconsistent. Our preliminary findings strengthen the hypothesis that these PGRMC1+/SR-B1+/IBA1+ macrophage-like cells might be activated or recruited via progesterone in the canine uterus.

Figure F-I: Despite the smooth muscle bundles of the myometrium (MY) IBA1+ cells (F, arrow) that were negative for MAC387 (G: IBA1 green, MAC387 red, nuclear counterstaining: DAPI in blue) were identified to be positive for PGRMC1 (H, arrow) and SR-B1 (I, arrow).

Reference