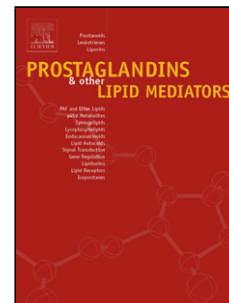


Accepted Manuscript

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PII: S1098-8823(17)30086-2
DOI: <https://doi.org/10.1016/j.prostaglandins.2018.02.001>
Reference: PRO 6270

To appear in: *Prostaglandins and Other Lipid Mediators*

Received date: 1-7-2017
Revised date: 24-1-2018
Accepted date: 5-2-2018

Please cite this article as: Chaudhari Ravjibhai K, Mahla Ajit Singh, Singh Amit Kumar, Singh Sanjay Kumar, Pawde Abhijit M, Kumar GVPPS Ravi, GyanendraSingh, Sarkar Mihir, Kumar Harendra, Narayanan Krishnaswamy. Effect of dietary n-3 polyunsaturated fatty acid rich fish oil on the endometrial prostaglandin production in the doe (*Capra hircus*). *Prostaglandins and Other Lipid Mediators* <https://doi.org/10.1016/j.prostaglandins.2018.02.001>

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Effect of dietary n-3 polyunsaturated fatty acid rich fish oil on the endometrial prostaglandin production in the doe (*Capra hircus*)

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Highlights

- Fish oil rich in EPA and DHA was supplemented *per oral* for 8 weeks in the doe.
- Endometrium was collected by laparohysterotomy on day 16 post-estrus.
- Endometrial explant culture was done to study PG synthesis.
- Fish oil inhibited basal and OXT and/or roIFN τ induced production of PGF_{2 α} and PGE₂.
- Downregulation of COX-2 transcripts was the reason behind decreased PG production.

Abstract

Recently, we showed that dietary supplementation of n-3 PUFA rich fish oil (FO) decreased the metabolites of serum prostaglandin (PG) F_{2 α} and E₂ during the window of pregnancy recognition in the doe. In this study, we investigated its effect on the changes on endometrial PG production *in vitro*. Cycling does (n=12) of Rohilkhand region were divided into two equal groups and fed a concentrate diet supplemented with either FO containing 26% n-3 PUFA (TRT; n=6) or palm oil (CON; n=6) @

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