


SUPPLEMENTATION WITH THE PROBIOTIC STRAIN *LIGILACTOBACCILUS SALIVARIUS* PS2 DURING PREGNANCY AND LACTATION PREVENTS MASTITIS

Online publication: <https://www.mdpi.com/2076-2607/9/9/1933>



Mastitis is a key barrier to continue breastfeeding

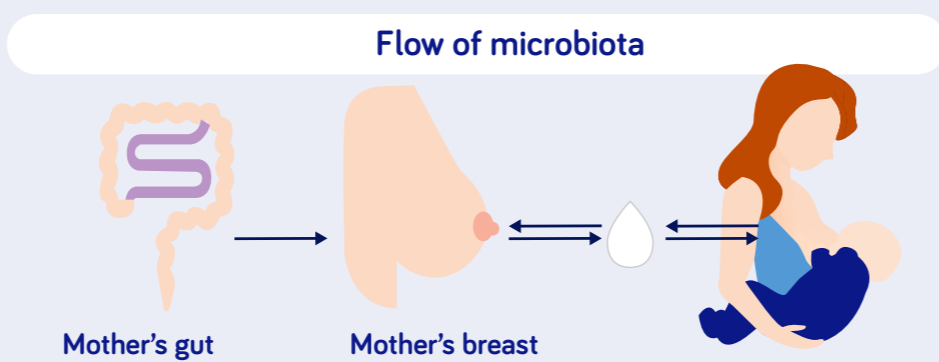
The incidence of mastitis is estimated to be between 10-33% of breastfeeding mothers

Mastitis is an inflammatory condition of the breast, which may or may not be accompanied by infection.¹

Mastitis: a dysbiosis of the human milk microbiota

| | |
|---|---|
| A depletion of beneficial commensal bacteria ² <small>(e.g. <i>Lactococcus</i>, <i>Lactobacillus</i>)</small> | Rapid growth of opportunistic pathogenic bacteria ² <small>(e.g. <i>Staphylococcus</i>, <i>Streptococcus</i>, <i>Corynebacterium</i>)</small> |
|---|---|

One of the common current practices for treating mastitis is the use of antibiotics. However, this can negatively impact the maternal microbiota and thus result in an alteration of the mother-to-infant microbiota transmission.



HUMAN MILK

Human milk is the best source of nutrition for all infants, and breastfeeding has numerous short- and long-term benefits for both infants and mothers.

Each drop of human milk contains thousands of different molecules that work in unison.

Bacteria & Probiotics

It has been estimated that human milk contains between bacteria 10^3 - 10^6 bacteria per milliliter.^{3,4}

Bacteria present in human milk are for example: *Streptococcus*, *Staphylococcus*, *Lactobacillus* and *Bifidobacterium*.⁵⁻⁷ Many of these bacteria may be human commensals or have potential probiotic effects.



PREMIUM STUDY:

ORAL ADMINISTRATION OF THE PROBIOTIC STRAIN *L. SALIVARIUS* PS2 DURING LATE PREGNANCY AND EARLY LACTATION TO PREVENT MASTITIS IN A HEALTHY POPULATION

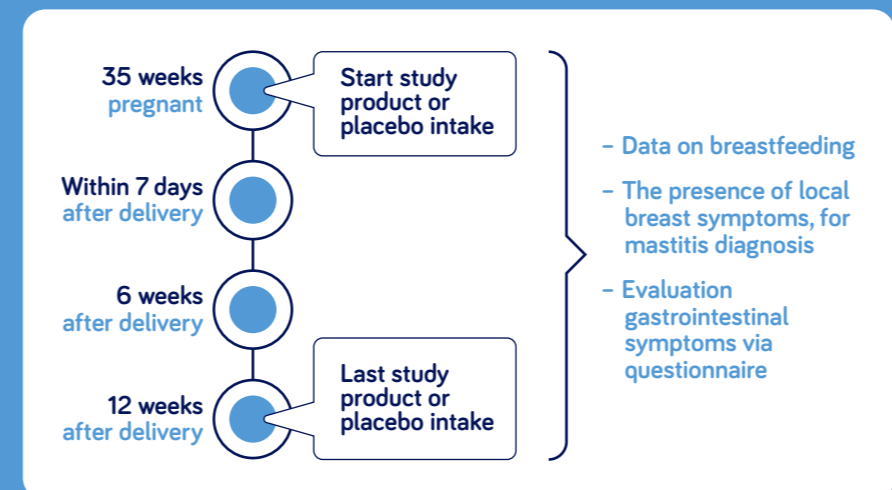
A randomized, double-blind, placebo controlled, parallel group, intervention study

328 subjects | 16 sites | 4 countries

Healthy pregnant women intending to breastfeed their babies recruited between 33rd and 35th week of pregnancy

TWO GROUPS

| | |
|--|---|
| Probiotic Group One sachet (10^9 CFU <i>L. salivarius</i> PS2)/day (until delivery) | Placebo Group One sachet (carrier)/day (until delivery) |
|--|---|

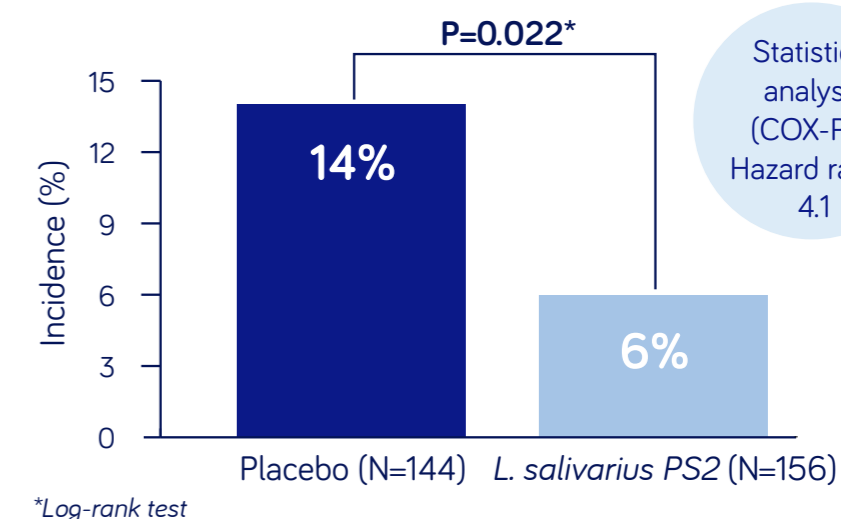


*Additional visits and assessments were performed in case of (suspected) mastitis

RESULTS

58%

PS2 significantly reduces the incidence of mastitis, 58% less likely to develop mastitis



In total 29 subjects reported mastitis
Probiotic group n=9 | Placebo group n=20

In case of mastitis there seems to be a more pronounced reduction in breast pain and less use of antibiotics in the probiotic (PS2) group

No safety concerns with regard to the occurrence of adverse events

CONCLUSION

The probiotic strain *L. salivarius* PS2 is suitable for the prevention of mastitis

