

Factor V Leiden

Patient Education and Genetic Counseling

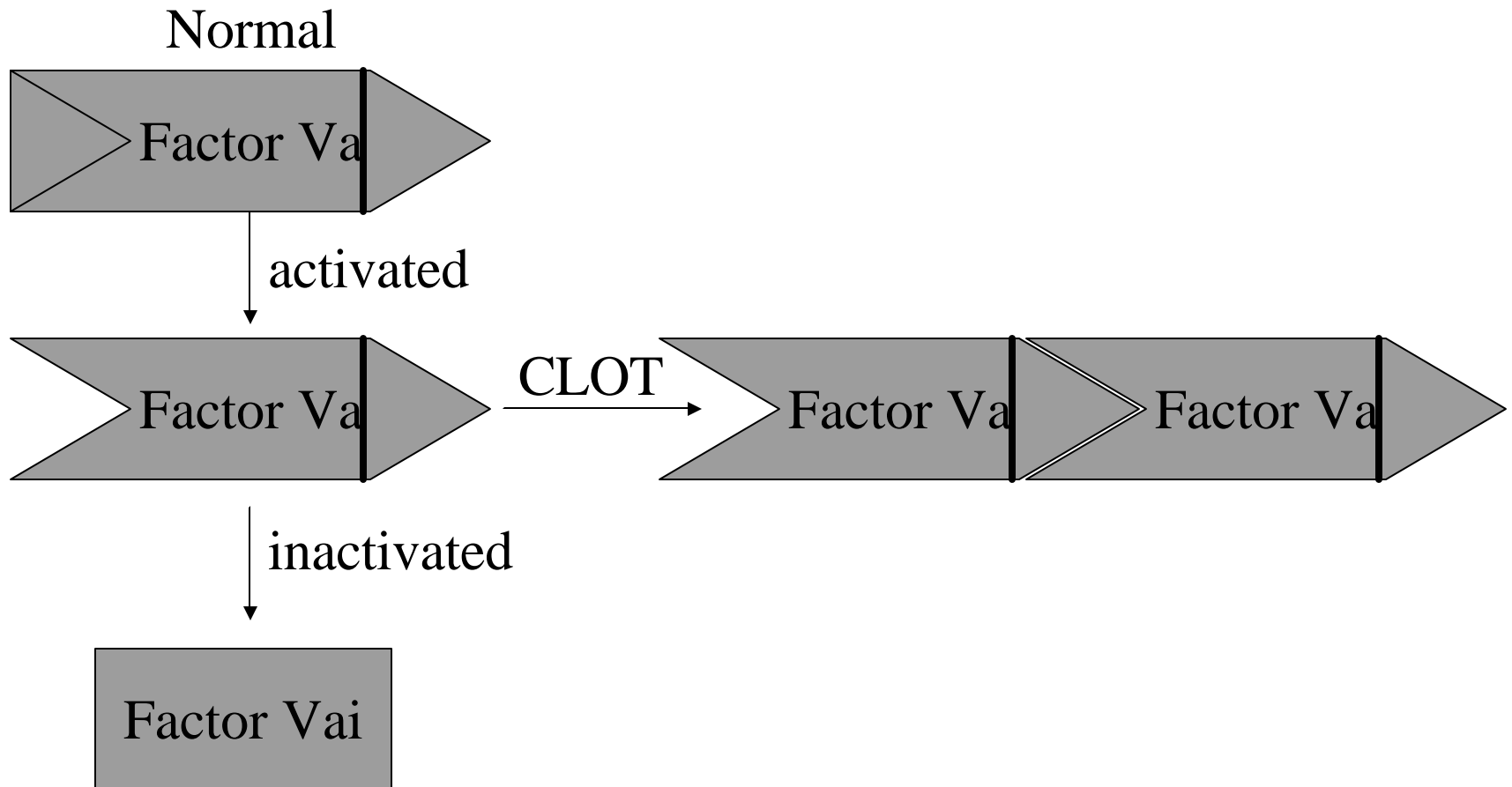
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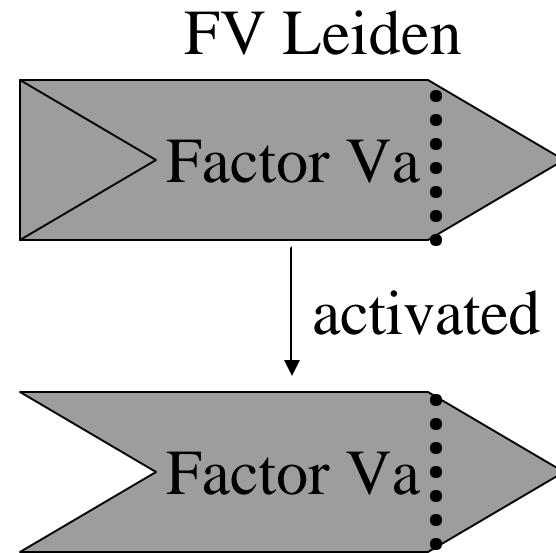
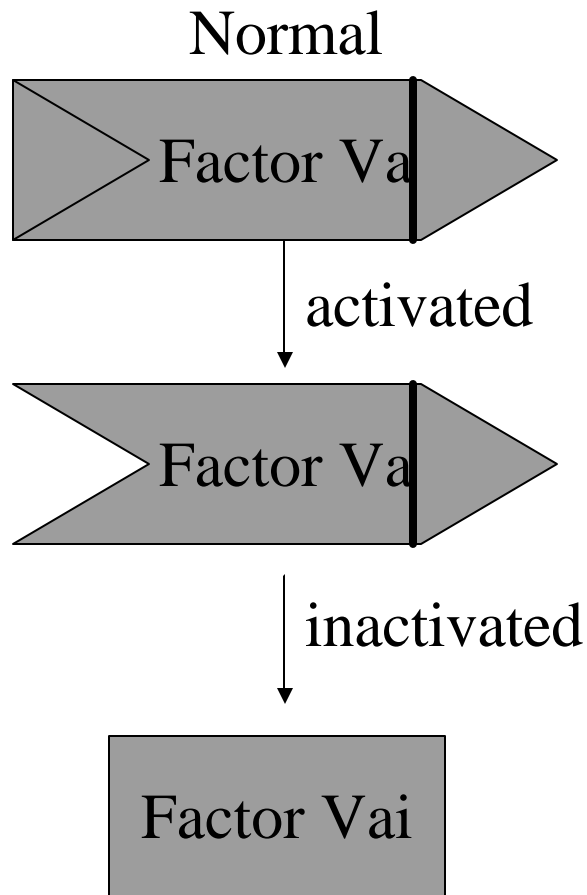
Factor V Leiden

- Normal blood clotting and Factor V Leiden
- Pathophysiology & mechanism
- Genetics & genetic counseling
- Epidemiology
- Risk of thrombosis
- Additional risk factors- genetic and acquired

Normal Blood Clotting



Factor V Leiden



Factor V Leiden is a genetic change that makes Factor V resistant to inactivation.

Genetics & genetic counseling

- Transmission
 - Autosomal dominant
 - 50:50 likelihood (flip of a coin)
- Screening those without blood clots
 - Siblings
 - Children
 - Parents

Risk of thrombosis

- 7 fold greater than the baseline risk
 - thrombosis risk increased to approximately 35 fold with oral contraceptive pills and hormone replacement therapy
 - Other genetic risk factors
 - Acquired risk factors

Increased risk of thrombosis

- Clinical settings associated with increased risk
 - Surgery
 - Pregnancy and estrogens (OCPs and hormones)
 - Major medical illness
 - Trauma
 - Travel

Risk reduction during high risk situations

- Graduated compression stockings
- Intermittent pneumatic compression devices

Pharmacological measures

- Low dose, unfractionated heparin
- Low molecular weight heparin
- Coumadin
- Aspirin

Estrogen-progesterone oral contraceptive pills

- Benefits
- Risks
 - Myocardial infarction
 - Stroke
 - Venous thromboembolism- DVT and PE
 - Cerebral venous thrombosis

Additional risk factors

- Tobacco use, smoking
- Obesity, BMI over 30
- Hyperlipidemia
- Impact of migraine headaches on the risk for stroke and the interaction of oral contraceptive pills and factor V Leiden.
- Varicose veins

Signs and symptoms

- Myocardial infarction
- Stroke
- Venous thromboembolism
 - DVT
 - PE
- Cerebral venous thrombosis
- Appropriate action- 911 or local emergency room

Maternal-Fetal Issues

- Blood clot during pregnancy or after delivery
- Fetal loss
- Pre-eclampsia
- Intrauterine growth retardation

Recommendations

- Discourage the use of oral contraceptive pills either for contraception or hormone replacement therapy
- Exercise
- No tobacco use
- Maintain body weight (BMI less than 30)

Alternative strategies

- For birth control
 - Depo-Provera
 - Progestin-only mini-pills
 - Progesterone patch

Follow-up

- Annual visit to reinforce messages
- With major change in health status
 - Pregnancy
 - Cancer
 - Chronic disease

Questions?

- Please call
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877-RUSH-KID
- Email
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