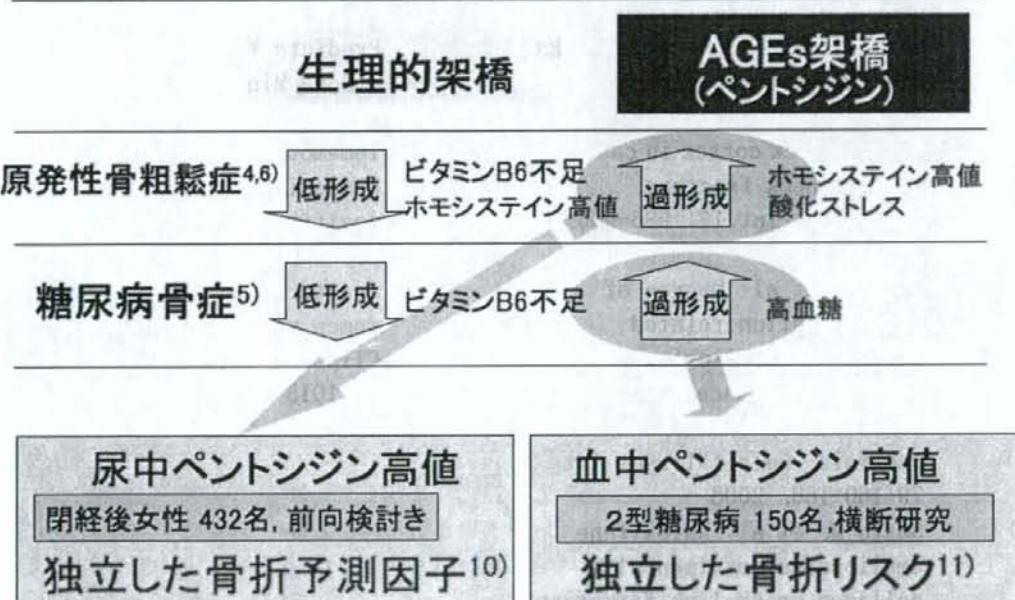


図2. 原発性骨粗鬆症におけるコラーゲンの架橋形成に異常が生じるメカニズム。ビタミンB群・葉酸不足、MTHFR酵素（TT型）により、血中のホモシスティンが高値となる。これらの因子は、生理的架橋の形成に関わるリジルオキシダーゼの酵素活性を低下させるのに対して、AGEs架橋（ペントシジン）の形成を促進する酸化ストレスを高めてしまう。（著者作成）

**表2. 骨コラーゲンの架橋異常と
骨折リスクマーカーとしての尿中および血中のペントシジン測定**

表2



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