A Case of Unstable Angina in which Percutaneous Transluminal Coronary Angioplasty was not Fully Indicated

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We presented a case of a 56-year-old male with unstable angina in which we initially attempted percutaneous transluminal coronary angioplasty (PTCA) but ultimately discontinued the procedure because of two vessel involvement.

We present a case of unstable angina with two vessel involvement in order to discuss whether two vessel disease is an indication for PTCA or not.

PRESENTATION OF A CASE
A 56-year-old male farmer was admitted to the coronary care unit of Ashikaga Red-Cross Hospital on March 16, 1981 because of unstable angina lasting for one month. His coronary risk factors included smoking (20 cigarettes daily) and positive family history (his father had died of cardiac disease at age 50 years).

A resting electrocardiogram recorded on admission revealed ST segment elevation in V₁₋₃, T wave inversion in V₁₋₄ and ST segment depression in V₅₋₆. The ST segment elevation and T wave inversion returned to normal within 2 weeks and abnormal Q waves or reduction of R wave amplitude did not appear. Serum GOT, LDH and CK did not show any elevation. Nifedipine (40 mg a day) was started right after admission and no further anginal attack occurred. Treadmill exercise testing, performed on the 20th hospital day, revealed ST segment depression in II, III, aVF, and V₅₋₆.

Coronary arteriography was performed on March 20th 1981, using Judkins technique. This coronary arteriogram made us consider that this was a case of single vessel disease involving the proximal portion of the left anterior descending artery (LAD) and a good indication for PTCA.

On April 15th, 1981, we tried PTCA using Grünzig’s catheter with all cardiac surgeons on call. But diagnostic CAG performed before angioplasty revealed 75% stenosis at the proximal portion of the left circumflex artery (LCX) in addition to LAD (Fig. 1).

We therefore decided to measure the coronary arterial pressure without attempting angioplasty. Significant stenosis of LCX was verified by documentation of a 84 mmHg pressure gradient across the stenotic lesion. The pressure gradient across the stenotic lesion of LAD was 47 mmHg.

Fig. 1. Left coronary arteriogram.

Key Words:
Percutaneous transluminal coronary angioplasty (PTCA)
PTCA in unstable angina

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The catheter was withdrawn without attempting angioplasty.

DISCUSSION

We decided that PTCA was not fully indicated in this case because of two vessel involvement. A higher mortality rate for PTCA in multivessel disease than in single vessel disease has been reported by several authors.\(^\text{1-3}\) Therefore the usefulness and safety of PTCA in multivessel disease should be determined by future investigation.

REFERENCES